APPENDIX:
SP MODE TABLES

REVISION HISTORY		
Page	Date	Added/Updated/New
45	05/21/2009	Updated Information - SP 5801 (D068/D069)
86	03/17/2009	Updated Information - SP 5873
138	05/19/2009	Updated Information – SP1001
164	05/21/2009	Updated Information - SP 5801 (D067/D072)

5. APPENDIX: SP MODE TABLES

5.1 SYSTEM SERVICE MODE (F/SPF: D068/D069)

5.1.1 SERVICE MODE TABLES

SP1-XXX (Feed)

1001*	LE Registration	[–9.0 to 9.0 / **0.0** / 0.1 mm/step]
1001 1	All Trays	Adjusts the leading-edge registration (☛"Adjusting Copy Image Area" in the section "Replacement and Adjustment").
1001 2	By-pass	
1001 3	Duplex	

1002*	S-to-S Regist	[–9.0 to 9.0 / **0.0** / 0.1 mm/step]
1002 1	1st Tray	Adjusts the side-to-side registration (☛"Adjusting Copy Image Area" in the section "Replacement and Adjustment"). SP1-002-001 is applied to all trays. SP1-002-002, 003 and 005 adjusts the difference from SP1-002-001.
1002 2	2nd Tray	
1002 3	3rd Tray	
1002 5	By-pass	
1002 6	Duplex	Adjusts the side-to-side registration of the 2nd side in duplex copying. The 1st side is adjusted by SP1-002-001 through 005.

System Service Mode (F/SPF: D068/D069)

1003*	Paper Feed Timing	Adjusts the amount of paper buckle on the registration roller.
1003 1	1st tray	[0 to 10 / **5** / 1 mm/step]
1003 3	Bank Trays	[0 to 10 / **5** / 1 mm/step]
1003 4	By-pass	[0 to 10 / **5** / 1 mm/step]
1003 5	Duplex	[0 to 20 / **5** / 1 mm/step]

<table>
<tr><td><b>1103*</b></td><td>Fusing Idling</td><td colspan="2">[<b>0</b> = No / 1 = Yes]</td></tr>
<tr><td rowspan="5">1103 1</td><td colspan="3">Enables or disables the contact-release control. The following table lists the results.</td></tr>
<tr><td><b>Setting</b></td><td><b>0 = No</b></td><td><b>1 = Yes</b></td></tr>
<tr><td>C-R control</td><td>Works</td><td>Does not work</td></tr>
<tr><td>Idling time</td><td>Shorter</td><td>Longer</td></tr>
<tr><td>Fusing quality</td><td>Lower</td><td>Higher</td></tr>
</table>

<table>
<tr><td rowspan="2"><b>1105*</b></td><td colspan="2">Fusing Temp Adj</td></tr>
<tr><td colspan="2">Adjusts the target fusing temperature. Note that the thermistor is at the center of the hot roller.</td></tr>
<tr><td>1105 1</td><td>Warm Up-Center</td><td>[140 to 180 / <b>160</b> / 1°C/step]</td></tr>
<tr><td>1105 3</td><td>Standby-Center</td><td>[140 to 160 / <b>150</b> / 1°C/step]</td></tr>
<tr><td>1105 5</td><td>Copying-Center</td><td>[140 to 180 / <b>160</b> / 1°C/step]</td></tr>
<tr><td>1105 7</td><td>Low Level 2-Center</td><td>[0 to 80 / <b>60</b> / 1°C/step]</td></tr>
<tr><td>1105 9</td><td>Thick-Center</td><td>[140 to 185 / <b>165</b> / 1°C/step]</td></tr>
</table>

1106	Display Fusing
1106 1	(Center) Displays the fusing temperature.

1107*	Fusing Soft Start **DFU**	
	Adjusts the number of zero-cross cycles of the fusing lamp AC supply needed to bring the fusing lamp power to 100% while bringing the lamp up to the standby temperature or while copying. Increase this value if the machine is experiencing sudden power dropouts.	
1107 1	Warm Up Soft Start	[0 = 10 times / 1 = 20 times / **2** = 50 times]
1107 2	Other Soft Start	[0 = 10 times / 1 = 20 times / **2** = 50 times / 3 = 1 time]
1107 3	Soft Stop Setting	[0: No / **1**: Yes]

1108*	Set-Fusing Start	[**0** = 1s / 1 = 1.5s / 2 = 2s]
1108 1	Specifies the interval for fusing-temperature control.	

1109	Nip Band Check
1109 1	Conducts the nip band check (☛ "Adjusting Nip Band" in the section "Replacement and Adjustment").

1110*	Fan Control Timer	[30 to 60 / **30** / 1 s/step]
1110 1	Specifies the fan control time. The fan motor keeps its operating speed for the specified time before changing the speed or stopping. The fan control timer prevents the exhaust fan from suddenly stopping. This function protects the copier from overheating.	

1159*	Fusing Jam SC	[**0 =** No / 1 = Yes]
1159 1	Enables or disables consecutive jam detection at the fusing unit. If this SP is set to "1" (default: 0), consecutive fusing jam alarm occurs (SC559) when the machine detects three consecutive paper jams at the fusing unit.	

1902	Display-AC Freq.
1902 1	Displays the fusing lamp power control frequency (as detected by the zero cross signal generator). The displayed value is 1/5 the actual frequency: 10 and lower = 50 Hz, 11 and higher = 60 Hz.

1911*	By-pass Envelope	[**0** = No / 1= Yes]
1911 1	The program dedicated to envelope printing runs when you enable this program (SP1-911-001) and you select “Thick Paper” as the paper type of the by-pass tray (◈/123 > System Settings > Tray Paper Settings > Paper Type: Bypass Tray).	

SP2-XXX (Drum)

2001*	CR Bias Adj	
2001 1	Printing	[–2100 to –1500 / **–1650** / 1 V/step]
	Adjusts the voltage applied to the charge roller for printing. The voltage changes automatically as charge-roller voltage control works. The value here is the base value for the charge-roller voltage control.	
2001 2	ID sensor pattern	[0 to 400 / **300** / 1 V/step]
	Adjusts the voltage applied to the charge roller for the ID sensor pattern (as part of charge-roller voltage correction). The charge-roller voltage is obtained by adding SP2-001-002 to the value of SP2-001-001.	

2101*	Erase Margin Adj	Adjusts the width of the erased area (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment").
2101 1	Leading Edge	[0.0 to 9.0 / **3.0** / 0.1 mm/step] Specification: 2 ± 1.5 mm
2101 2	Trailing Edge	[0.0 to 9.0 / 4.**0** / 0.1 mm/step] Specification: 2 +2.5/–1.5 mm
	The rear trailing edge is this value plus 1.2 mm.	
2101 3	Left side	[0.0 to 9.0 / **2.0** / 0.1 mm/step] Specification: 2 ± 1.5 mm
	The rear left edge is this value plus 0.3 mm.	
2101 4	Right side	[0.0 to 9.0 / **2.0** / 0.1 mm/step] Specification: 2 +2.5/–1.5 mm
	The rear right edge is this value plus 0.3 mm.	

2201*	Dv Bias Adj	
2201 1	Printing	[–1500 to –200 / **–650** / 1 V/step]
	Adjusts the voltage applied to the development roller for printing. Image density becomes higher when you specify a smaller value (a greater absolute value). Image density becomes lower when you specify a greater value (a smaller absolute value).	
2201 2	ID sensor pattern	[–2 = LL (220 V) / -1 = L (260 V) / **0** = N (300 V) / 1 = H (340 V) / 2 = HH (380 V)]
	Adjusts the voltage applied to the development roller for the ID sensor pattern. The voltage applied is obtained by adding SP2-201-002 to SP2-201-1. The setting affects ID sensor pattern density, which in turn affects the toner supply.	

2213*	Outputs After NE
2213 1	[**0** = 50 pages / 1 = 20 sheets] Sets the number of copy/print/fax pages that can be made after toner near-end has been detected. Reduce the number of pages if the user normally makes copies with a high image ratio.

2214	Develpr Initialize
2214 1	Initializes the TD sensor toner supply target voltage and the TD sensor gain value. Execute this SP replacing the developer or the TD sensor.

2221	ID Error Analysis (☛ "ID Sensor Error Analysis (SP2-221)")	
2221 1	Vsg	Displays the Vsg value.
2221 2	Vsp	Displays the Vsp value.
2221 3	PWM	Displays the PWM value.
2221 4	Vsdp	Displays the Vsdp value.
2221 5	Vt	Displays the Vt value.
2221 6	Vts	Displays the Vts value.

2301*	Tr Current Adj (☛ "Image Transfer Current").	
2301 1	Normal paper	[–2 = –4 µA / –1 = –2 µA / **0 = 0 µA** / 1 = 2 µA / 2 = +4 µA]
	Adjusts the current applied to the transfer roller when feeding from a paper tray. Use a high setting if the user normally feeds relatively thick paper (within spec) from a paper tray	
2301 2	Thick/Special	[–2 = –4 µA / –1 = –2 µA / **0 = 0 µA** / 1 = 2 µA / 2 = +4 µA]
	Adjusts the current applied to the transfer roller when feeding from the by-pass tray. Use a high setting (a) if the user normally feeds relatively thick paper from the by-pass tray, or (b) if waste toner is re-attracted from the drum (which can occur when using transparencies).	
2301 3	Duplex	[–2 = –4 µA / –1 = –2 µ/ **0 = 0 µA** / 1 = 2 µA / 2 = +4 µA]
	Adjusts the current applied to the transfer roller when carrying out a duplex job. Use this SP if there is poor image transfer on the rear side of duplex copies.	

2301 4	Cleaning	[–10 to 1 / **–1** / 1 μA/step]
	Adjusts the current applied to the transfer roller for roller cleaning. Increase the current if toner remains on the roller after cleaning. (Remaining toner may cause dirty background on the rear side.)	

2802	Forced Develpr Churn
2802 1	Initializes the developer and checks the TD sensor output (Vt). The machine mixes the developer for 2 minutes while reading and displaying the Vt value. The machine does not initialize the TD sensor output. If the machine has not been used for a long period, prints may have a dirty background. In a case like this, use this SP to mix the developer. The message "Completed" is displayed when the program ends normally.

2906*	Tailing Crctn	
2906 1	Shift value	[0.0 to 1.0 / **0.0** / 0.1 mm/step]
	Shifts the image position at the intervals specified by SP2-906-002. When the copier is continuously printing vertical lines (such as in tables), the paper may not separate correctly. This SP can prevent this.	
2906 2	Interval	[1 to 10 / **1** / 1 page/step]
	Changes the interval of the image position shift specified by SP2-906-001.	

2908	Forced Toner Supp
2908 1	Supplies the toner to the development unit. The processing stops under either of the following conditions: ▪ The toner density in the development unit reaches the standard level. ▪ The processing has continued for two 2 minutes.

2915*	Polygon Idling	[0 = None / **1** = 15 s / 2 = 25 s]
2915 1	Specifies the polygon mirror motor idling time. The polygon mirror motor starts its operation when an original is set, a key is pressed, or the platen cover or DF is opened. The motor stops if no manual operation is performed for the specified time. When you set “0”, the motor does not stop while the copier is in the standby status.	

2921*	Toner Supply Mode
2921 1	[**0** = Sensor 1 / 1 = Sensor 2 (**DFU**)] Selects the toner supply mode. Keep the default setting as long as the TD sensor is working.

2922*	Toner Supply Time	[0.1 to 5.0 / **0.6** / 0.1 s/step]
2922 1	Adjusts the toner supply time. The toner supply motor remains on for the specified time. To validate this setting, select “0” in SP2-921-001. Specify a greater value if the user tends to make many copies having high proportions of solid black image areas.	

2926*	Standard Vt	[0.00 to 5.00 / **2.50** / 0.01 V/step] **DFU**
2926 1	Adjusts Vts (the Vt value for new developer). The TD sensor output is adjusted to this value during the TD sensor initial setting process. This SP is effective only when SP2-921001 is “0”, “1”, or “2”.	

2927*	ID Sensor Control	[0 = No / **1** = Yes]
2927 1	Determines whether the ID sensor signal is referenced or not for the toner density control. Keep the default value in usual operations.	

2928	Toner End Clear
2928 1	Clears the following messages and counters without supplying the toner: ▪ Toner near end message ▪ Toner end message ▪ Toner near end counter ▪ Toner end counter Do not use this SP in usual operations. When the toner in the development unit is abnormally insufficient, the drum may attract the toner carrier to its surface. The toner carrier damages the drum surface..

2929*	Vref Limits	Adjust the upper or lower Vref limit.
2929 1	Upper	[0.50 to 3.50 / **3.20** / 0.01V/step] **DFU**
2929 2	Lower	[0.50 to 3.50 / **0.70** / 0.01V/step] **DFU**

2994*	ID Detect Temp	[30 to 90 / **30** / 1 °C/step]
2994 1	Adjusts the temperature threshold. The ID sensor signal is not referenced when the fusing temperature is at the specified level or higher while the copier is recovering or starting up.	

2996*	T Roller Cleaning	[**0** = No / 1 = Yes]
2996 1	Cleans or does not clean the transfer roller before each job. Select “1” if the backside of the paper becomes unclean when output. Note that the copier takes a longer time to output the first copy when you select “1”. If you select “0”, the transfer roller is never cleaned.	

2998*	Main Mag- print	[–0.5 to +0.5 / **0.0** / 0.1%/step]
2998 1	Adjusts the magnification (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment"). The specification is 100 ± 1.0%.	

SP4-XXX (Scanner)

4008*	SubScan Mag (Scanner)	[-0.9 to +0.9 / **0.0** / 0.1%/step]
4008 1	Adjusts the sub-scan magnification (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment").	

4009*	Main Scan Mag (Scanner)	[–0.9 to +0.9 / **0.0** / 0.1%/step]
4009 1	Adjusts the main-scan magnification (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment").	

4010*	LE Scan Regist	[–5.0 to +5.0 / **0.0** / 0.1 mm/step]
4010 1	Adjusts the leading edge registration (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment").	

4011*	S-to-S Scanner Registration	[–2.0 to +2.0 / **0.0** / 0.1 mm/step]
4011 1	Adjusts the side-to-side registration for scanning in platen mode (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment").	

4012*	Scan Erase Margin	[0 to 9.0 / **1.0** / 0.1 mm/step]
4012 1	Leading Edge	Adjusts the scanning margin. Generally, the scanning margin should be as little as possible. To adjust the image area, use SP2-101.
4012 2	Trailing Edge	
4012 3	Left Side	
4012 4	Right Side	

4013	Scanner Free Run
4013 1	Conducts the scanner free run with the exposure lamp on.

4015*	White Plate Scan	
4015 1	Start position	[–3.0 to +6.0 / **0.0** / 0.1 mm/step]
	Adjusts the scanning start position on the white plate. The base value is 17.8 mm from the scanner home position. This SP specifies the offset from this base value.	
4015 2	Scanning Length	[–3.0 to +6.0 / **0.0** / 0.1 mm/step]
	Adjusts the distance of the white plate scan. The scan begins from the start position (SP4-015-001) and ends at the specified distance. The base value is 2.0 mm. This SP decides the offset from this base value. Specify 0 (zero) or a larger value.	

4428	Scan Auto Adj
4428 1	Conducts the automatic scanner adjustment. Use this SP after replacing the white plate (☛ "Scanning" in the section "Replacement and Adjustment").

4606	SBU Offset-Target	
4607 1	EVEN	[0 to 63 / **10** / 1 /step] Adjusts the target black level for each signal. These are used for offset adjustment in the SBU.
4607 2	ODD	
4607 3	RED	
4607 4	GREEN	
4607 5	BLUE	

4607	SBU Gain-Target	
4607 1	EVEN	[0 to 255 / **180** / 1 /step] Adjusts the target white level for each signal. These are used for gain adjustment in the SBU.
4607 2	ODD	
4607 3	RED	
4607 4	GREEN	
4607 5	BLUE	

4623	SBU Offset-Result	
4623 1	EVEN	[0 to 255 / **0** / 1 /step] Displays the result value of the offset adjustment in the SBU.
4623 2	ODD	
4623 3	RED	
4623 4	GREEN	
4623 5	BLUE	

4628	SBU Gain-Result	
4628 1	EVEN	[0 to 255 / **0** / 1 /step] Displays the result value of the gain adjustment in the SBU.
4628 2	ODD	
4628 3	RED	
4628 4	GREEN	
4628 5	BLUE	

4640	SBU Offset-Loop	
4640 1	EVEN	[0 to 10 / **0** / 1 /step] Displays the number of the offset adjustment in the SBU.
4640 2	ODD	
4640 3	RED	
4640 4	GREEN	
4640 5	BLUE	

4641	SBU Gain-Loop	
4641 1	EVEN	[0 to 10 / **0** / 1 /step] Displays the number of the gain adjustment in the SBU.
4641 2	ODD	
4641 3	RED	
4641 4	GREEN	
4641 5	BLUE	

4642	SBU Offsetpre-Loop	
4642 1	EVEN	[0 to 3 / **0** / 1 /step] Displays the number of the pre-offset adjustment in the SBU.
4642 2	ODD	
4642 3	RED	
4642 4	GREEN	
4642 5	BLUE	

4646	SBU Adj Error	
4646 1	Offsetpre-Mono	[**0** = Success / 1 = Failure] Displays the result of SBU adjustment.
4646 2	Offsetpre-Color	
4646 3	Offset-Mono	
4646 4	Offset-Color	
4646 5	Gain-Mono	
4646 6	Gain-Color	

4654*	SBU Offset-Adjust	
4654 1	EVEN	[0 to 255 / **-** / 1 /step] Displays the offset value of the offset adjustment in the SBU.
4654 2	ODD	
4654 3	RED	
4654 4	GREEN	
4654 5	BLUE	

4658*	SBU Gain-Adjust	
4658 1	EVEN	[0 to 511 / **-** / 1 /step] Displays the gain value of the gain adjustment in the SBU.
4658 2	ODD	
4658 3	RED	
4658 4	GREEN	
4658 5	BLUE	

4685*	Gray Balance-Book	
4685 1	RED	[128 to 383 / **256** / 1 /step] Adjusts the coefficient of the gray balance adjustment for the book scanning.
4685 2	GREEN	
4685 3	BLUE	

4686*	Gray Balance-DF	
4686 1	RED	[128 to 383 / **256** / 1 /step] Adjusts the coefficient of the gray balance adjustment for the DF scanning.
4686 2	GREEN	
4686 3	BLUE	

4687*	White Balance	
4687 1	Adjust	[222 to 281 / **256** / 1 /step] Adjust the correction value for the white plate adjustment.
4687 2	Result	Displays the current value of the white plate adjustment. If SP4-428 has not been done, this value is "0".

4690	White Peek Init	
4658 1	EVEN	[0 to 255 / **-** / 1 /step] Displays the white offset value of the pre-offset adjustment in the SBU.
4658 2	ODD	
4658 3	RED	
4658 4	GREEN	
4658 5	BLUE	

4693	Black Ave Init	
4658 1	EVEN	[0 to 255 / **-** / 1 /step] Displays the black offset value of the pre-offset adjustment in the SBU.
4658 2	ODD	
4658 3	RED	
4658 4	GREEN	
4658 5	BLUE	

4902*	Exposure Lamp ON	[**0**: OFF / 1: ON]
4902 1	Turns the exposure lamp on or off. To turn on the exposure lamp, specify “1”; to turn it off specify “0”.	

4903*	ADS Level	[0 to 255 / **252** / 1/step]
4903 1	Adjusts the ADS level.	

4904*	ADS Lower Limit	[0 to 255 / **80** / 1/step]
4904 1	Adjusts the ADS lower limit.	

4905*	ADS Area Select	[**0** = All / 1 = One]
4905 1	Checks the whole area (0 = All) or the specific areas (1 = One) to adjust the ADS level. The specific areas are as follows: ▪ ARDF: ±37.5 mm from the center ▪ Platen Cover: 15 to 90 mm from the left edge	

4921*	Image Adj Selec	
001	Copy	[0 to 10 / 0 / 1]
	Selects which mode the settings from SP4-922 to SP4-932 are used for. 0 = None, 1 = Text 1, 2 =Text 2, 3= Photo 1, 4 = Photo 2, 5 = Photo 3, 6 = Special 1, 7 = Special 2, 8 = Special 3, 9 = Special 4, 10 = Special 5	
002	Fax	[0 to 5 / **0** / 1]
	Selects which mode the settings from SP4-922 to SP4-932 are used for. 0 = None, 1 = Text 1, 2 = Text 2, 3 = Photo 1, 4 = Photo 2, 5 = Special 1	
003	Scanner (Mono)	[0 to 4 / **0** / 1]
	Selects which mode the settings from SP4-922 to SP4-932 are used for. 0 = None, 1 = Text 1, 2 = Text 2, 3= Photo 1, 4 = Photo 2	
004	Scanner (Color)	[0 to 2 / **0** / 1]
	Selects which mode the setting of SP4-935 is used for. 0 = None, 1 = Color Text, 2 = Color Photo	
005	Scanner (Gray Scale)	[0 or 1 / **0** / -]
	Selects which mode the setting of SP4-936 is used for. 0 = None, 1 = Gray Scale	

4922*	Scanner Gamma	
	Selects “text” or “photo” as the priority output mode. This setting is applied to all image processing modes of SP4-921.	
001	Copy	[**0**=System default/ 1=Text/ 2=Photo]
002	Fax	
003	Scanner	

4923*	Notch Selection	
	Selects the value of the center ID adjustment notch for the ID adjustment LEDs. ▪ Normally the center notch is 3 (range 1-5). If –1 is selected, each notch shifts down (becomes lighter). If +1 is selected, each notch shifts up (becomes darker). ▪ This setting is applied to all image processing modes of SP4-921.	
001	Copy	[–1 = Light / **0** = Normal / +1 = Dark]
002	Fax	
003	Scanner	

4926*	Texture Removal	
	Adjusts the texture removal level that is used with error diffusion. 0: The default value for each mode is used. Text 1, Photo 2, Special 2, and Special 5 have a default of 3 and Photo 1-3 have a default of 1. 1: No removal applied. 2 to 5: Removal applied at the level specified here. The higher the setting (level), the less clear the image will become (more texture removal). This setting is only applied to the originals in SP4-921.	
001	Copy	[0 to 6 / **0** / 1/step]
002	Fax	
003	Scanner	

4927*	Line Width	
	Adjusts the line width correction algorithm. Positive settings produce thicker lines; negative settings produce thinner lines. This setting is only applied to the originals in SP4-921.	
001	Copy	[–2 to 2 / **0** / 1/step]
002	Fax	
003	Scanner	

4928*	Independent Dot Erase	
	Selects the dot erase level. Higher settings provide greater erasure. This setting is only applied to the originals in SP4-921.	
001	Copy	[–2 to 2 / **0** / 1/step]
002	Fax	
003	Scanner	

4929*	Positive/Negative	[**0 = No**, 1 = Yes]
	Inverts white and black. This setting is only applied to the originals in SP4-921.	
001	Copy	
002	Fax	

4930*	Sharpness-Edge	[–2 to 2 / **0** / 1/step]
	Adjust the clarity. This setting is only applied to the originals in SP4-921.	
001	Copy	
002	Fax	
003	Scanner	

4931*	Sharpness-Solid	[–2 to 2 / **0** / 1/step]
	Adjust the clarity. This setting is only applied to the originals in SP4-921.	
001	Copy	
002	Fax	
003	Scanner	

4932*	Sharpness-Low ID	[–2 to 2 / **0** / 1/step]
	Adjust the clarity. This setting is only applied to the originals in SP4-921.	
001	Copy	
002	Fax	
003	Scanner	

4935*	Color Image Adjust	
001	Main Scan MTF Level	[0 to 3 / **0** / 1/step]
	Adjust the MTF level for the main scan. This setting is only activated for the specified mode with SP4-921-004. 0: None, 1: Weak, 2: Middle, 3: Strong	
002	Main Scan MTF Strength	[0 to 5 / **0** / 1/step]
	Adjust the MTF strength for the main scan. This setting is only activated for the specified mode with SP4-921-004. 0: 1, 1: 1/32, 2: 1/16, 3: 1/8, 4: 1/4, 5: 1/2	
003	Sub Scan MTF Level	[0 or 1 / **0** / 1/step]
	Turns on or off the MTF for the sub scan. This setting is only activated for the specified mode with SP4-921-004. 0: No, 1: Yes	
004	Sub Scan MTF Strength	[0 to 5 / **0** / 1/step]
	Adjust the MTF strength for the sub scan. This setting is only activated for the specified mode with SP4-921-004. 0: 1, 1: 1/32, 2: 1/16, 3: 1/8, 4: 1/4, 5: 1/2	

005	Smooth Level	[0 to 2 / **0** / 1/step]
	Adjust the smooth level. This setting is only activated for the specified mode with SP4-921-004. 0: None, 1: Weak, 2: Strong	
006	Brightness	[0 to 255 / **128** / 1/step]
	Adjust the brightness level. This setting is only activated for the specified mode with SP4-921-004.	
007	Contrast	[0 to 255 / **128** / 1/step]
	Adjust the contrast level. This setting is only activated for the specified mode with SP4-921-004.	

4936*	Gray Scale Image Adjust	
001	Main Scan MTF Level	[0 to 15 / **0** / 1/step]
	Adjust the MTF level for the main scan. This setting is only activated for the specified mode with SP4-921-004. 0: None, 1: Level 1 to 15: Level 15	
002	Main Scan MTF Strength	[0 to 5 / **0** / 1/step]
	Adjust the MTF strength for the main scan. This setting is only activated for the specified mode with SP4-921-004. 0: 1, 1: 1/32, 2: 1/16, 3: 1/8, 4: 1/4, 5: 1/2	
003	Sub Scan MTF Level	[0 to 13 / **0** / 1/step]
	Adjust the MTF level for the sub scan. This setting is only activated for the specified mode with SP4-921-004. 0: No, 1: Level 1 to 13: Level 13	

004	Sub Scan MTF Strength	[0 to 5 / **0** / 1/step]
	Adjust the MTF strength for the sub scan. This setting is only activated for the specified mode with SP4-921-004. 0: 1, 1: 1/32, 2: 1/16, 3: 1/8, 4: 1/4, 5: 1/2	
005	Smooth Level	[0 to 7 / **0** / 1/step]
	Adjust the smooth level. This setting is only activated for the specified mode with SP4-921-004. 0: None, 1: Level 1 to 7: Level 7	
006	Brightness	[0 to 255 / **128** / 1/step]
	Adjust the brightness level. This setting is only activated for the specified mode with SP4-921-004.	
007	Contrast	[0 to 255 / **128** / 1/step]
	Adjust the contrast level. This setting is only activated for the specified mode with SP4-921-004.	

4941*	White Line Erase	[0 to 2 / **1** / 1/step]
4941 1	Selects the white line erase level. 0: None, 1: Weak, 2: Strong ▪ This setting is effective for all modes. ▪ 0: White line erase is not used, and white level correction is used instead· ▪ This setting is applied regardless of what mode has been selected in SP4-921.	

4942*	Black Line Erase	[0 to 3 / **2** / 1/step]
4942 1	Selects the black line erase level. This setting is effective only when originals are scanned by the DF. [0 = No / 1 = Very weak / 2 = Weak / 3 = Strong] This setting is applied regardless of what mode has been selected in SP4-921.	
4943*	WhitePapDetect BiLv	
4943 1	Gray Scale	[0 to 255 / **64** / 1/step]
4943 1	Color2	[0 to 255 / **128** / 1/step]
4943 1	Color3	[0 to 255 / **128** / 1/step]

SP5-XXX (Mode)

5001	All Indicators On
5001 1	Turns on all LEDs. The LCDs turn on and off every 3 seconds. Press the reset key to end this program.

5024*	mm/inch Selection
001	Selects whether mm or inches are used in the display. Note ▪ After selecting the number, you must turn the main power switch off and on. Europe/Asia model: [**0**: **mm** / 1: inch] American model: [0: mm / **1**: **inch**]

5045*	According Counter	
5045 1	Counter Method	Displays the number of the installed counter. [0 to 2 / **0** / 1 /step] 0: 1 counter (Total) 1: 2 counters (Total and Prints) 2: 2 counters GPC

5055	Display IP address		
001	Display IP address	CTL	Displays or does not display the IP address on the LCD. [0 or 1 / **0** / -] 0: No (Not display), 1: Yes (Display)

5056	Coverage Counter		
001	Coverage Counter	CTL	Displays or does not display the coverage counter on the LCD. [0 or 1 / **0** / -] 0: Not display, 1: Display

5062	Part Replacement		
001	PCU	CTL	Displays or does not display the PCU yield on the LCD. [0 or 1 / **0** / -] 0: Not display, 1: Display

5066	PM Parts Display		
001	PM Parts Display	CTL	Displays or does not display the PM part button on the LCD. [0 or 1 / **0** / -] 0: Not display, 1: Display

5067	Part Replacement Ope		
001	PCU	CTL	Selects the service maintenance or user maintenance for PCU. [0 or 1 / **0** / -] **0: Service**, 1: User

5113	Optional Counter Type		
001	Opt Cnt Type 1	CTL	This program specifies the counter type. **0: None** 1: Key card (RK 3, 4) 2: Key card (down) 3 to 10: (Japan only) 11: Exp. Key card (Add) 12: Exp. Key card (Deduct)
002	Opt Cnt Type 2	CTL	This program specifies the external counter type. **0: None** 1: Expansion Device type 1 2: Expansion Device type 2 3: Expansion Device type 3

5114	Optional Counter I/F	CTL	[**0**: Not installed/ 1: Installed (scanning accounting)]
001	MF Key Card Ext. Japan use		

5118	Disable Copying	CTL	[**0**: Not disabled/ 1: Disabled]
001	This program disables copying.		

5120*	Clr For Cut Remove	[**0**=Yes / 1=Standby only / 2=No]
5120 1	Specifies the condition to reset the copy job settings when the key counter is removed. ▪ 0: Y = Yes: The settings are cleared when the counter is removed. ▪ 1: StdBy = Standby only: The settings are cleared when the counter is removed at the end of a job. ▪ 2: N = No: The settings are not cleared under either condition. As for duplex copying, the job settings are always preserved regardless of these setting.	

5121*	Counter Up Timing	[**0** = Feed In / 1 = Exit]
5121 1	Selects the count-up timing. ▪ 0 = Feed: At each paper feed ▪ 1= Exit: At each paper exit	

5167	Fax Prnt Cnt Off		
	Enables or disables the automatic print out without an accounting device. This SP is used when the receiving fax is accounted by an external accounting device.		
001	Fax Prnt Cnt Off	CTL	[0 or 1 / **0** / –] 0: Automatic printing 1: No automatic printing

5169	CE Login		
	If you change the printer bit switches, you must ‘log in’ to service mode with this SP before you go into the printer SP mode.		
001	CE Login	CTL	[0 or 1 / **0** / -] 0: Disabled 1: Enabled

5188	Copy NV Version		
001	Copy NV Version	CTL	Displays the NVRAM version in the controller board.

5302	Set Time		
	Adjusts the RTC (real time clock) time setting for the local time zone. Examples: For Japan (+9 GMT), enter 540 (9 hours x 60 min.) DOM: +540 (Tokyo) NA :-300 (New York) EU :+ 60 (Paris) CH :+480 (Peking) TW :+480 (Taipei) AS :+480 (Hong Kong)		
002	Time Difference	CTL #	[-1440 to 1440 / **Area** / 1 min./step]

5307	Summer Time		
001	ON/OFF	-	[0 or 1 / **NA, EU, ASIA** / 1 /step] 0: Disabled 1: Enabled NA and EUR: 1, ASIA: 0
	Enables or disables the summer time mode. Note ▪ Make sure that both SP5-307-3 and -4 are correctly set. Otherwise, this SP is not activated even if this SP is set to "1".		
003	Start	-	-
	Specifies the start setting for the summer time mode. There are 8 digits in this SP. For months 1 to 9, the "0" cannot be input in the first digit, so the eight-digit setting for -2 or -3 becomes a seven-digit setting. 1st and 2nd digits: The month. [1 to 12] 3rd digit: The week of the month. [1 to 5] 4th digit: The day of the week. [0 to 6 = Sunday to Saturday] 5th and 6th digits: The hour. [00 to 23] 7th digit: The length of the advanced time. [0 to 9 / 1 hour /step] 8th digit: The length of the advanced time. [0 to 5 / 10 minutes /step] For example: 3500010 (EU default) The timer is advanced by 1 hour at am 0:00 on the 5th Sunday in March ▪ The digits are counted from the left. ▪ Make sure that SP5-307-1 is set to "1".		

004	End	-	-
	Specifies the end setting for the summer time mode. There are 8 digits in this SP. 1st and 2nd digits: The month. [1 to 12] 3rd digit: The week of the month. [0 to 5] 4th digit: The day of the week. [0 to 6 = Sunday to Saturday] 5th and 6th digits: The hour. [00 to 23] The 7th and 8th digits must be set to "00". ▪ The digits are counted from the left. ▪ Make sure that SP5-307-1 is set to "1".		

5401	Access Control		
	When installing the SDK application, SAS (VAS) adjusts the following settings. **DFU**		
103	DocAcl	CTL	
104	Authentication Time	CTL	[0 to 255 / **0** / 1 /step]
162	Extend Certification	CTL	Selects the log out type for the extend authentication device. Bit 0: Log-out without an IC card. 0: Not allowed (default) 1: Allowed
200	SDK1 Unique ID	CTL	"SDK" is the "software development kit". This data can be converted from SAS (VAS) when installed or uninstalled. (DFU)
201	SDK1 Certification Method	CTL	
210	SDK2 Unique ID	CTL	
211	SDK2 Certification Method	CTL	
220	SDK3 Unique ID	CTL	

221	SDK3 Certification Method	CTL	
230	SDK Cert	CTL	
240	Detail Option	CTL	Enables or disables the log-out confirmation option. Bit0: Log-out confirmation option **0: Enable (default)**, 1: Disable Selects the automatic log-out time. Bit1 and 2: Automatic log-out timer reduction **00: 60 seconds (default)**, 01:10 seconds, 10: 20seconds, 11: 30 seconds

5404	User Code Clear
001	Clears the counts for the user codes assigned by the key operator to restrict the use of the machine. Press [Execute] to clear.

5411	LDAP Certification
004	Easy Certification
	Determines whether easy LDAP certification is done. [0 to 1/**1**/1] 1: On 0: Off
005	Password Null Not Permit
	This SP is referenced only when SP5411-4 is set to "1" (On). [0 to 1/**0**/1] 0: Password NULL not permitted. 1: Password NULL permitted.

5413	Lockout Setting
001	Lockout On/Off
	Switches on/off the lock on the local address book account. [0 to 1/**0**/1] 0: Off 1: On
002	Lockout Threshold Sets a limit on the frequency of lockouts for account lockouts. [1 to 10/**5**/1]
003	Cancel On/Off
	Determines whether the system waits the prescribed time for input of a correct user ID and password after an account lockout has occurred. [0 to 1/**0**/1] 0: Off (no wait time, lockout not cancelled) 1: On (system waits, cancels lockout if correct user ID and password are entered.
004	Cancel Time
	Determines the length of time that the system waits for correct input of the user ID and password after a lockout has occurred. This setting is used only if SP5413-3 is set to "1" (on). [1 to 999/**60**/1 min.]

5414	Access Mitigation
001	Mitigation On/Off
	Switches on/off masking of continuously used IDs and passwords that are identical. [0 to 1/**0**/1] 0: Off 1: On
002	Mitigation Time
	Sets the length of time for excluding continuous access for identical user IDs and passwords. [0 to 60/15/1 min.]

5415	Password Attack
001	Permissible Number
	Sets the number of attempts to attack the system with random passwords to gain illegal access to the system. [0 to 100/**30**/1 attempt]
002	Detect Time
	Sets the time limit to stop a password attack once such an attack has been detected. [1 to 10/**5**/1 sec.]

5416	Access Info
001	User Max Num
	Limits the number of users used by the access exclusion and password attack detection functions. [50 to 200/**200**/1 users]
002	Password Max Num
	Limits the number of passwords used by the access exclusion and password attack detection functions. [50 to 200/**200**/1 passwords]
003	Monitor Interval
	Sets the processing time interval for referencing user ID and password information. [1 to 10/**3**/1 sec.]

5417	Access Attack
001	Permissible Num
	Sets a limit on access attempts when an excessive number of attempts are detected for MFP features. [0 to 500/**100**/1]
002	Attack Detect Time
	Sets the length of time for monitoring the frequency of access to MFP features. [10 to 30/**10**/1 sec.]

003	Cert Waite
	Sets the wait time to slow down the speed of certification when an excessive number of access attempts have been detected. [0 to 9/**3**/1 sec.]
004	Attack Max Num
	Sets a limit on the number of requests received for certification in order to slow down the certification speed when an excessive number of access attempts have been detected. [50 to 200/**200**/1 attempt]

5420	User Auth
	These settings should be done with the System Administrator. **Note**: These functions are enabled only after the user access feature has been enabled.
001	Copy
	Determines whether certification is required before a user can use the copy applications. [0 to 1/**0**/1] 0: On 1: Off
011	DS
	Determines whether certification is required before a user can use the document server. [0 to 1/**0**/1] 0: On 1: Off

System Service Mode (F/SPF: D068/D069)

021	Fax	Determines whether certification is required before a user can use the fax application. [0 to 1/**0**/1] 0: On 1: Off
031	Scanner	Determines whether certification is required before a user can use the scan applications. [0 to 1/**0**/1] 0: On 1: Off
041	Printer	Determines whether certification is required before a user can use the printer applications. [0 to 1/**0**/1] 0: On 1: Off
051	SDK1	[0 or 1/ **0** / 1] 0: ON. 1: OFF Determines whether certification is required before a user can use the SDK application.
061	SDK2	
071	SDK3	

5431	External Auth User	CTL	-
010	Tag		
011	Entry		
012	Group		
020	Mail		
030	Fax		
031	Fax Sub		
032	Folder		
033	Protect Code		
034	Smtp Auth		
035	Lsap Auth		
036	Smb Ftp Fldr Auth		
037	Acut Acl		
038	Document ACL		
040	Cert Crypt		

5481	Authentication Error Code These SP codes determine how the authentication failures are displayed.
001	System Log Disp Determines whether an error code appears in the system log after a user authentication failure occurs. [0 to 1/0/1] 0: Off 1: On
002	Panel Disp Determines whether an error code appears on the operation panel after a user authentication failure occurs. [0 to 1/1/1] 1: On 0: Off

5490	MF Keycard **Japan Only** Job Permit Setting Sets up operation of the machine with a keycard. [0 to 1/0/1] 0: Disabled. Cancels operation if no code is input. 1: Enabled. Allows operation if another code is input and decrements the counter once for use of the entered code.

5501	PM Alarm Interval	CTL	-
001	Printout	[0 to 9999 / **0** / 1 /step] 0: Alarm off 1 to 9999: Alarm goes off when the PM counter reaches the specified value (1 to 9999) x 1000.	
002	ADF	[0 or 1 / **1** / –] 0: No alarm sounds 1: Alarm sounds after the number of originals passing through the A(R)DF ≥ 10,000	

5504	Jam Alarm	CTL	-
001	Sets the alarm to sound for the specified jam level (document misfeeds are not included). [0 to 3 / **3** / 1 /step] 0: Zero (Off), 1: Low (2.5K jams), 2: Medium (3K jams), 3: High (6K jams)		

5505*	Error Alarm
001	Sets the error alarm level. The error alarm counter counts "1" when any SC is detected. However, the error alarm counter decreases by "1" when any SC is not detected during specified sheets of copies (for example, default 1500 sheets). The error alarm occurs when the SC error alarm counter reaches "5". [0 to 255 / **10** / 100 copies per step]

5507	Supply Alarm	CTL	-
001	Paper Size	**0: Off**, 1: On,	
003	Toner	**0: Off**, 1: On,	
005	Drum	**0: Off**, 1: On,	
080	Toner Call Timing	**0: Toner is replaced (default)** 1: Toner near end or end	
128	Interval :Others	[250 to 10000 / **1000** / 1 /step]	
132	Interval :A3		
133	Interval :A4		
134	Interval :A5		
141	Interval :B4		
142	Interval :B5		
160	Interval :DLT		
164	Interval :LG		
166	Interval :LT		
172	Interval :HLT		

5508*	Auto Call Setting	CTL	-
001*	Jam Remains	0: Disable, **1**: Enable	
	Enables/disables initiating a call for an unattended paper jam.		
002*	Frequent Jams	0: Disable, **1**: Enable	
	Enables/disables initiating a call for consecutive paper jams.		
003*	Door Open	0: Disable, **1**: Enable	
	Enables/disables initiating a call when the front door remains open.		
011*	Jam Remains: Time	[03 to 30 / **10** / 1 minute /step]	
	Sets the time a jam must remain before it becomes an “unattended paper jam”. This setting is enabled only when SP5508 004 is set to 1.		
012*	Freq Jam: # of Time	[02 to 10 / **5** / 1 /step]	
	Sets the number of consecutive paper jams required to initiate a call. This setting is enabled only when SP5508 004 is set to 1.		
013*	Door Open: Time	[03 to 30 / **10** / 1 minute/step]	
	Sets the length of time the door remains open before the machine initiates a call. This setting is enabled only when SP5508 004 is set to 1.		

5515	SC/Alarm Setting	CTL	-
	With @Remote in use, these SP codes can be set to issue an SC call when an SC error occurs. If this SP is switched off, the SC call is not issued when an SC error occurs.		
001	SC Call	[0 or 1 / **1** / -] 0: Off, 1: On	
002	Service Parts Near End		
003	Service Parts End		
004	User Call		
006	Communication Test		
007	Machine Information		
008	Alarm Notice		
010	Supply Automatic Order	[0 or 1 / **0** / -] 0: Off,1: On	
011	Supply Management Report		
012	Jam/Door Open Call	[0 or 1 / **1** / -] 0: Off,1: On	

⇒ **5801**	**[Memory Clear]** (Refer to IMPORTANT NOTE is Sect 6.2) Before executing any of these SP codes, print an SMC Report.		
001	All Clear		
	Initializes items SP5801-002 to -014 below. Turn the main power switch off and on after executing this SP.		
003	SCS	-	-
	Clears the system settings.		
004	IMH	-	-
	Clears IMH data. **DFU**		
005	MCS	-	-
	Clears MCS data. **DFU**		
006	Copier	-	-
	Clears the copy application settings.		
007	Fax	-	-
	Clears the fax application settings.		
008	Printer	-	-
	Clears the printer application settings.		
009	Scanner	-	-
	Clears the scanner application settings.		
010	GWWS	-	-
	Delete the netfile application management files and thumbnails, and initializes the job login ID.		

011	NCS	-	-
	Initializes the system default and interface settings (IP address also), SmartNetMonitor for Admin, WebImageMonitor settings, and the TELNET settings. **Note** ▪ The name of Apple talk is not cleared only if this SP is executed. Turns off and on after executing this SP.		
012	R-FAX	-	-
	Initializes the job login ID, SmartNetMonitor for Admin, job history, and local storage file numbers.		
014	Clear DCS Setting	-	-
	Initializes the DCS (Delivery Control Service) settings.		
015	Clr UCS Setting	-	-
	Initializes the UCS (User Information Control Service) settings.		
016	MIRS Setting	-	-
	Initializes the MIRS (Machine Information Report Service) settings.		
017	CCS	-	-
	Initializes the CCS (Certification and Charge-control Service) settings.		
018	SRM Memory Clr	-	-
	Initializes the SRM (System Resource Manager) settings.		
019	LCS	-	-
	Initializes the LCS (Log Count Service) settings.		
020	Web Apli	-	-
	Initializes Web application settings.		

5802	Machine Free Run	[0 or 1 / **0** / -] 0: No, 1: Yes
5802 1	Conducts machine free run (including the scanner unit). Set "1" and then press "⊙" key. Press "⊙" key again to start "Free Run". When this SP is set to "0", the machine operates normally even "⊙" key is pressed.	

5803	Input Check
	☛"Input Check" in this chapter.

5804	Output Check
	☛ "Output Check" in this chapter.

5807*	Area Selection
5807 1	Selects the display language. 2 North America, 3 Europe, 5 Asia, 6 China SP5-807-001 is not cleared by SP5-801-002. **NOTE:** SC982 is displayed if you specify a language that is inconsistent with your local model.

5811*	Machine No. Setting
001	Code Set
	☛ "Machine No. Setting" in this section.

5812	Service TEL		
001	Telephone	CTL	-
	Sets the telephone number for a service representative. This number is printed on the Counter List, which can be printed with the user's "Counter" menu. This can be up to 20 characters (both numbers and alphabetic characters can be input).		
002	Facsimile	CTL	-
	Sets the fax or telephone number for a service representative. This number is printed on the Counter List. This can be up to 20 characters (both numbers and alphabetic characters can be input).		
003	Supply	CTL	-
	Use this to input the telephone number of your supplier for consumables. Enter the number and press"StringIn" key. Press the "Clear modes" key to delete the telephone number.		
004	Sales	CTL	-
	Use this to input the telephone number of your sales agency. Enter the number and press #. Press the "Clear modes" key to delete the telephone number.		

5816	**[NRS Function]**	CTL	-
001	I/F Setting	Selects the remote service setting. [0 to 2 / **2** / 1 /step] 0: Remote service off 1: CSS remote service on 2: @Remote service on	
002	CE Call	Performs the CE Call at the start or end of the service. [0 or 1 / **0** / 1 /step] 0: Start of the service, 1: End of the service Note ▪ This SP is activated only when SP 5816-001 is set to “2”.	
003	Function Flag	Enables or disables the remote service function. [0 or 1 / **0** / 1 /step] 0: Disabled, 1: Enabled	
007	SSL Disable	Uses or does not use the RCG certification by SSL when calling the RCG. [0 or 1 / **0** / 1 /step] 0: Uses the RCG certification 1: Does no use the RCG certification	
008	RCG Connect T/O	Specifies the connect timeout interval when calling the RCG. [1 to 90 / **10** / 1 second/step]	
009	RCG Write Timeout	Specifies the write timeout interval when calling the RCG. [1 to 100 / **60** / 1 second/step]	

<table>
<tr><td>010</td><td>RCG Read Timeout</td><td>Specifies the read timeout interval when calling the RCG.
[1 to 100 / **60** / 1 second/step]</td></tr>
<tr><td>011</td><td>Port 80</td><td>Enables/disables access via port 80 to the SOAP method.
[0 or 1 / **0** / –]
0: Disabled, 1: Enabled</td></tr>
<tr><td>013</td><td>RFU Timing</td><td>Selects the timing for the remote firmware updating.
[0 or 1 / **0** / –]
0: Any status of a target machine
1: Sleep or panel off mode only</td></tr>
<tr><td rowspan="2">022</td><td colspan="2">Install Status</td></tr>
<tr><td colspan="2">This SP displays the RCG device installation status.
0: RCG device not registered
1: RCG device registered
2: Device registered</td></tr>
<tr><td rowspan="2">023</td><td colspan="2">Connect Mode (N/M)</td></tr>
<tr><td colspan="2">This SP displays and selects the embedded RCG connection method.
0: Internet connection
1: Dial-up connection</td></tr>
<tr><td rowspan="2">061</td><td colspan="2">NotiTime ExpTime **DFU**</td></tr>
<tr><td colspan="2">Proximity of the expiration of the certification.</td></tr>
<tr><td rowspan="2">062</td><td colspan="2">HTTP Proxy Use</td></tr>
<tr><td colspan="2">This SP setting determines if the proxy server is used when the machine communicates with the service center.</td></tr>
</table>

063	HTTP Proxy Host
	This SP sets the address of the proxy server used for communication between embedded RCG-N and the gateway. Use this SP to set up or display the customer proxy server address. The address is necessary to set up embedded RCG-N. Note ▪ The address display is limited to 127 characters. Characters beyond the 127th character are ignored. ▪ This address is customer information and is not printed in the SMC report.
064	HTTP Proxy Port
	This SP sets the port number of the proxy server used for communication between embedded RCG N and the gateway. This setting is necessary to set up embedded RCG-N. Note ▪ This port number is customer information and is not printed in the SMC report.
065	HTTP Proxy Aut Usr
	This SP sets the HTTP proxy authentication user name. Note ▪ The length of the name is limited to 31 characters. Any character beyond the 31st character is ignored. ▪ This name is customer information and is not printed in the SMC report.
066	HTTP Proxy Aut Pass
	This SP sets the HTTP proxy authentication password. Note ▪ The length of the password is limited to 31 characters. Any character beyond the 31st character is ignored. ▪ This name is customer information and is not printed in the SMC report.

067	Cer Updt Cond	
	Displays the status of the certification update.	
	0	The certification used by embedded RCG is set correctly.
	1	The certification request (setAuthKey) for update has been received from the GW URL and certification is presently being updated.
	2	The certification update is completed and the GW URL is being notified of the successful update.
	3	The certification update failed, and the GW URL is being notified of the failed update.
	4	The period of the certification has expired and a new request for an update is being sent to the GW URL.
	11	A rescue update for certification has been issued and a rescue certification setting is in progress for the rescue GW connection.
	12	The rescue certification setting is completed and the GW URL is being notified of the certification update request.
	13	The notification of the request for certification update has been completed successfully, and the system is waiting for the certification update request from the rescue GW URL
	14	The notification of the certification request has been received from the rescue GW controller, and the certification is being stored.
	15	The certification has been stored, and the GW URL is being notified of the successful completion of this event.
	16	The storing of the certification has failed, and the GW URL is being notified of the failure of this event.

067	17	The certification update request has been received from the GW URL, the GW URL was notified of the results of the update after it was completed, but a certification error has been received, and the rescue certification is being recorded.
	18	The rescue certification of No. 17 has been recorded, and the GW URL is being notified of the failure of the certification update.
068	Cer Abnml Cause	
	Displays a number code that describes the reason for the request for update of the certification.	
	0	Normal. There is no request for certification update in progress.
	1	Request for certification update in progress. The current certification has expired.
	2	An SSL error notification has been issued (after the certification has expired).
	3	Notification of shift from a common authentication to an individual certification.
	4	Notification of a common certification without ID2.
	5	Notification that no certification was issued.
	6	Notification that GW URL does not exist.
069	Cer: Updtt ReqID	
	The ID of the request for certification.	
083	Firm Updating	
	Displays the status of the firmware update.	

085	Firm Up Usr Conf
	This SP setting determines if the operator can confirm the previous version of the firmware before the firmware update execution. If the option to confirm the previous version is selected, a notification is sent to the system manager and the firmware update is done with the firmware files from the URL.
086	Firmware Size
	Allows the service technician to confirm the size of the firmware data files during the firmware update execution.
087	CERT: Macro Vsn
	Displays the macro version of the @Remote certification.
088	CERT: PAC Vsn
	Displays the PAC version of the @Remote certification.
089	CERT: ID2 Code
	Displays ID2 for the @Remote certification. Spaces are displayed as underscores (_). Asterisks (*) indicate that no @Remote certification exists.
090	CERT: Subject
	Displays the common name of the @Remote certification subject. CN = the following 17 bytes. Spaces are displayed as underscores (_). Asterisks (*) indicate that no DESS exists.
091	CERT: Seri Num
	Displays serial number for the @Remote certification. Asterisks (*) indicate that no DESS exists.
092	CERT: Issuer
	Displays the common name of the issuer of the @Remote certification. CN = the following 30 bytes. Asterisks (*) indicate that no DESS exists.

093	CERT: St ExpTime
	Displays the start time of the period for which the current @Remote certification is enabled.
094	CERT: End ExpTime
	Displays the end time of the period for which the current @Remote certification is enabled.
150	Ins Country
	Select from the list the name of the country where embedded RCG-M is installed in the machine. After selecting the country, you must also set the following SP codes for embedded RCG-M: ▪ SP5816-153 ▪ SP5816-154 ▪ SP5816-161 0: Japan, 1: USA, 2: Canada, 3: UK, 4: Germany, 5: France 6: Italy, 7: Netherlands, 8: Belgium, 9: Luxembourg, 10: Spain
151	Aut Line Detect
	Press [Execute]. Setting this SP classifies the telephone line where embedded RCG-M is connected as either dial-up or push type, so embedded RCG-M can automatically distinguish the number that connects to the outside line. ▪ The current progress, success, or failure of this execution can be displayed with SP5816 152. ▪ If the execution succeeded, SP5816 153 will display the result for confirmation and SP5816 154 will display the telephone number for the connection to the outside line.

152	Line Detect Rst
	Displays a number to show the result of the execution of SP5816 151. Here is a list of what the numbers mean.
	0: Success 1: In progress (no result yet). Please wait. 2: Line abnormal 3: Cannot detect dial tone automatically 4: Line is disconnected 5: Insufficient electrical power supply 6: Line classification not supported 7: Error because fax transmission in progress – ioctl() occurred. 8: Other error occurred 9: Line classification still in progress. Please wait.
153	Dial/Push Select
	This SP displays the classification (tone or pulse) of the telephone line to the access point for embedded RCG-M. The number displayed (0 or 1) is the result of the execution of SP5816 151. However, this setting can also be changed manually. [0 to 1 / **0** / 1 /step] 0: Tone Dialing Phone 1: Pulse Dialing Phone Inside Japan "2" may also be displayed: 0: Tone Dialing Phone 1: Pulse Dialing Phone 10PPS 2: Pulse Dialing Phone 20PPS

154	Outline Phone #
	The SP sets the number that switches to PSTN for the outside connection for embedded RCG-M in a system that employs a PBX (internal line). ▪ If the execution of SP5816-151 has succeeded and embedded RCG-M has connected to the **external** line, this SP display is completely blank. ▪ If embedded RCG-M has connected to an **internal** line, then the number of the connection to the external line is displayed. ▪ If embedded RCG-M has connected to an external line, a comma is displayed with the number. The comma is inserted for a 2 sec. pause. ▪ The number setting for the external line can be entered manually (including commas).
156	Dial Up User
	Use this SP to set a user name for access to remote dial up. Follow these rules when setting a user name: ▪ Name length: Up to 32 characters ▪ Spaces and # allowed but the entire entry must be enclosed by double quotation marks (").
157	Dial Up Password
	Use this SP to set a password for access to remote dial up. Follow these rules when setting a user name: ▪ Name length: Up to 32 characters ▪ Spaces and # allowed but the entire entry must be enclosed by double quotation marks (").
161	Phone Number
	Use this SP to set the telephone number of the line where embedded RCG-M is connected. This number is transmitted to and used by the Call Center to return calls. Limit: 24 numbers (numbers only)

162	Ans Timing Adj
	When the Call Center calls out to a embedded RCG-M modem, it sends a repeating ID tone (*#1#). This SP sets the time the line remains open to send these ID tones after the number of the embedded RCG-M modem is dialed up and connected. [0 to 24/ **1** /1 /step] The actual amount of time is this setting + 2 sec. For example, if you set "2" the line will remain open for 4 sec.
163	Access Point
	This is the number of the dial-up access point for embedded RCG-M. If no setting is done for this SP code, then a preset value (determined by the country selected) is used. Default: 0 Allowed: Up to 16 alphanumeric characters
164	Comm Line
	This SP sets the connection conditions for the customer. This setting dedicates the line to embedded RCG-M only, or sets the line for sharing between embedded RCG-M and a fax unit. [0 or 1 / **0** / -] 0: Line shared by embedded RCG-M/Fax 1: Line dedicated to embedded RCG-M only Note ▪ If this setting is changed, the copier must be cycled off and on. ▪ SP5816 187 determines whether the off-hook button can be used to interrupt an embedded RCG-M transmission in progress to open the line for fax transaction.
173	Modem Serial Number
	This SP displays the serial number registered for the embedded RCG-M.

174	Lmt Resend Cncl
	Normally, it is best to allow unlimited time for certification and ID2 update requests, and for the notification that the certification has been completed. However, embedded RCG-M generates charges based on transmission time for the customer, so a limit is placed upon the time allowed for these transactions. If these transactions cannot be completed within the allowed time, do this SP to cancel the time restriction.
186	RCG-C M Debut Bit SW **DFU**
187	FAX TX Priority
	This SP determines whether pushing the off-hook button will interrupt an embedded RCG-M transmission in progress to open the line for fax transaction. This SP can be used only if SP5816-164 is set to "0". [0 or 1/ **0** / -] 0: Disable. Setting the fax unit off-hook does not interrupt a fax transaction in progress. If the off-hook button is pushed during a embedded RCG-M transmission, the button must be pushed again to set the fax unit on-hook after the embedded RCG-M transmission has completed. 1: Enable. When embedded RCG-M shares a line with a fax unit, setting the fax unit off-hook will interrupt a embedded RCG-M transmission in progress and open the line for a fax transaction.
200	Polling Man Exc
	Executes the polling test.

201	Instl: Condition
	Displays a number that indicates the status of the @Remote service device. 0: Neither the registered device by the external RCG nor embedded RCG device is set. 1: The embedded RCG device is being set. Only Box registration is completed. In this status the this unit cannot answer a polling request from the external RCG. 2: The embedded RCG device is set. In this status the external RCG unit cannot answer a polling request. 3: The registered device by the external RCG is being set. In this status the embedded RCG device cannot be set. 4: The registered module by the external RCG has not started.
202	Instl: ID#
	Allows entry of the number of the request needed for the embedded RCG.
203	Instl: Reference
	Executes the inquiry request to the @Remote GateWay URL.
204	Instl: Ref Rslt
	Displays a number that indicates the result of the inquiry executed with SP5816-203.
	0: Succeeded 1: Inquiry number error 2: Registration in progress 3: Proxy error (proxy enabled) 4: Proxy error (proxy disabled) 5: Proxy error (Illegal user name or password) 6: Communication error 7: Certification update error 8: Other error 9: Inquiry executing

205	Instl: Ref Section
	Displays the result of the notification sent to the device from the GW URL in answer to the inquiry request. Displayed only when the result is registered at the GW URL.
206	Instl: Rgstltn
	Executes Embedded RCG Registration.
207	Instl: Rgstltn Rst
	Displays a number that indicates the registration result. 0: Succeeded 2: Registration in progress 3: Proxy error (proxy enabled) 4: Proxy error (proxy disabled) 5: Proxy error (Illegal user name or password) 6: Communication error 7: Certification update error 8: Other error 9: Registration executing

208	Instl Error Code		
	Displays a number that describes the error code that was issued when either SP5816 204 or SP5816 207 was executed.		
	Cause	**Code**	**Meaning**
	Illegal Modem Parameter	-11001	Chat parameter error
		-11002	Chat execution error
		-11003	Unexpected error
	Operation Error, Incorrect Setting	-12002	Inquiry, registration attempted without acquiring device status.
		-12003	Attempted registration without execution of an inquiry and no previous registration.
		-12004	Attempted setting with illegal entries for certification and ID2.

208	Error Caused by Response from GW URL	-2385	Attempted dial up overseas without the correct international prefix for the telephone number.
		-2387	Not supported at the Service Center
		-2389	Database out of service
		-2390	Program out of service
		-2391	Two registrations for same device
		-2392	Parameter error
		-2393	External RCG not managed
		-2394	Device not managed
		-2395	Box ID for external RCG is illegal
		-2396	Device ID for external RCG is illegal
		-2397	Incorrect ID2 format
		-2398	Incorrect request number format
209	Instl Clear		
	Releases a machine from its embedded RCG setup.		
250	Print Com Log		
	Prints the communication log.		

5821	NRS Address	
002	RCG IP Address	Sets the IP address of the RCG (Remote Communication Gate) destination for call processing at the remote service center. [00000000h to FFFFFFFFh / 1 /step]

5824	NVRAM Upload
5824 1	☛ "NVRAM Upload/Download" in this section.

5825	NVRAM Download
5825 1	☛ "NVRAM Upload/Download" in this section.

5828	Network Setting	CTL
050	1284 Compatibility (Centro)	Enables or disables 1284 Compatibility. [0 or 1 / **1** / 1 / step] 0: Disabled, 1: Enabled
052	ECP (Centro)	Enables or disables ECP Compatibility. [0 or 1 / **1** / 1 / step] 0: Disabled, 1: Enabled **NOTE:** This SP is activated only when SP5-828-50 is set to "1".
065	Job Spooling	Enables/disables Job Spooling. [0 or 1 / **0** / 1 / step] 0: Disabled, 1: Enabled
066	Job Spooling Clear: Start Time	Treatment of the job when a spooled job exists at power on. 0: ON (Data is cleared) **1**: OFF (Automatically printed)
069	Job Spooling (Protocol)	Validates or invalidates the job spooling function for each protocol. **0**: Validates 1: Invalidates bit0: LPR bit1: FTP bit2: IPP bit3: SMB bit4: BMLinkS bit5: DIPRINT bit6: (Reserved) bit7: (Reserved)

090	TELNET (0: OFF 1: ON)	Enables or disables the Telnet protocol. [0 or 1 / **1** / –] 0: Disable, 1: Enable
091	Web (0: OFF 1: ON)	Enables or disables the Web operation. [0 or 1 / **1** / –] 0: Disable, 1: Enable
145	Active IPv6 Link	
	This is the IPv6 local address link referenced on the Ethernet or wireless LAN (802.11b) in the format: "Link Local Address" + "Prefix Length" The IPv6 address consists of a total of 128 bits configured in 8 blocks of 16 bits each.	
147	Active IPv6 Status Address 1	These SPs are the IPv6 status addresses (1 to 5) referenced on the Ethernet or wireless LAN (802.11b) in the format: "Status Address" + "Prefix Length" The IPv6 address consists of a total of 128 bits configured in 8 blocks of 16 bits each.
149	Active IPv6 Status Address 2	
151	Active IPv6 Status Address 3	
153	Active IPv6 Status Address 4	
155	Active IPv6 Status Address 5	
156	IPv6 Manual Setting Address	
	This SP is the IPv6 manually set address referenced on Ethernet or wireless LAN (802.11b) in the format: "Manual Set Address" + "Prefix Length" The IPv6 address consists of a total of 128 bits configured in 8 blocks of 16 bits each.	

158	IPv6 Gateway Address This SP is the IPv6 gateway address referenced on Ethernet or wireless LAN (802.11b). The IPv6 address consists of a total of 128 bits configured in 8 blocks of 16 bits each.
161	IPv6 Stateless Auto Setting Enables/disables the stateless automatic setting for Ethernet/wireless LAN operation. [0 to 1/1/1] 1: Enable 0: Disable
236	Web Item Invisible Determines whether each item can be set in Websys. [0x0000 to 0xffff/0xffff] Bit 1: NetRICOH Bit2: Vendor for consumables Bit2-15: Reserved
237	Web Shopping Link Invisible Determines whether the NetRICOH link is displayed on the Websys top page and link page. [0 to 1/1/1] 1: Display 0: No display
238	Web Supplies Link Invisible Determines whether the consumable vendor link is displayed on the Websys top page and link page. [0 to 1/1/1] 1: Display 0: No display

239	Web Link 1 Name Determines whether a name entered for "URL1" is displayed on the Websys link page. The name length is limited to 31 characters.
240	Web Link 1 URL Sets the URL referenced for URL1 linked to the Websys linked page. The link name is limited to 127 characters.
241	Web Link 1 Visible Determines whether the link for URL1 is displayed on the Websys top page. [0 to 1/1/1] 1: Display 0: No display
242	Web Link 2 Name Determines whether a name entered for "URL2" is displayed on the Websys link page. The name length is limited to 31 characters.
243	Web Link 2 URL Sets the URL referenced for URL2 linked to the Websys linked page. The link name is limited to 127 characters.
244	Web Link 2 Visible Determines whether the link for URL2 is displayed on the Websys top page. [0 to 1/1/1] 1: Display 0: No display

5832	HDD
	Enter the SP number for the partition to initialize, then press #. When the execution ends, cycle the machine off and on.
001	HDD Formatting (All)
002	HDD Formatting (IMH)
003	Format Thumbnail
004	Format Job Log
005	Format Font
006	Format User Info
007	Format Rec Mail
008	Format Sed Mail
009	Format DFU data
010	Format All Log
011	Format Ridoc I/F

5840	IEEE 802.11		
006	Channel MAX	CTL	[1 to 11 or 13 / **11** or **13** / 1 /step] Europe: 1 to 13, default: 13 NA/ Asia: 1 to 11, default: 11
	Sets the maximum number of channels available for data transmission via wireless LAN. The number of channels available varies according to location. The default settings are set for the maximum end of the range for each area. Adjust the upper 4 bits to set the maximum number of channels. **DFU** Note ▪ Do not change the setting.		

007	Channel MIN	CTL	[1 to 11 or 13 / **1** / 1 /step] Europe: 1 to 13 NA/ Asia: 1 to 11
	Sets the minimum number of channels available for data transmission via the wireless LAN. The number of channels available varies according to location. The default settings are set for the minimum end of the range for each area. Adjust the lower 4 bits to set the minimum number of channels. **DFU** ↓ Note ▪ Do not change the setting.		
011	WEP Key Select	CTL	[00 to 11 / 00 / 1 binary] 00: Key #1 01: Key #2 (Reserved) 10: Key #3 (Reserved) 11: Key #4 (Reserved)
	Selects the WEP key.		
042	Fragment Thresh	CTL	[256 to 2346 / **2346** / 1]
	Adjusts the fragment threshold for the IEEE802.11 card. This SP is displayed only when the IEEE802.11 card is installed.		
043	11g CTS to Self	CTL	[0 to 1 / **1** / 1] 0: Off, 1: On
	Determines whether the CTS self function is turned on or off. This SP is displayed only when the IEEE802.11 card is installed.		
044	11g Slot Time	CTL	[0 to 1 / **1** / 1] 0: 20μm, 1: 9μm
	Selects the slot time for IEEE802.11.		
045	WPA Debug Lyl	CTL	[0 to 3 / **3** / 1] 1: Info, 2: Warning, 3: Error
	Selects the debug log for WPA authentication application. This SP is displayed only when the IEEE802.11 card is installed.		

5842	GWWS Analysis **DFU**		
001	Setting 1	CTL	
	This is a debugging tool. It sets the debugging output mode of each Net File process. Default: Bit SW 1000 0000	Bit	Groups
		0	System & other groups (LSB)
		1	Capture related
		2	Certification related
		3	Address book related
		4	Machine management related
		5	Output related (printing, delivery)
		6	Repository related
		7	Debug log output
002	Setting 2	CTL	
	Default: Bit SW 0000 0000	Bit	Groups
		0-6	Not used
		7	Log time stamp setting 0: Date/Hour/Minute/Second 1: Minute/Second/Msecond

5844	USB		
001	Transfer Rate	CTL	
	Sets the speed for USB data transmission. [Full Speed] **[Auto Change]**		

002	Vendor ID	CTL	
	Sets the vendor ID: Initial Setting: 0x05A Ricoh Company [0x0000 to 0xFFFF/1] **DFU**		
003	Product ID	CTL	
	Sets the product ID. [0x0000 to 0xFFFF/1] **DFU**		
004	Device Release No.	CTL	
	Sets the device release number of the BCD (binary coded decimal) display. [0000 to 9999/1] **DFU** Enter as a decimal number. NCS converts the number to hexadecimal number recognized as the BCD.		

5845	Delivery Server Setting	CTL	-
	Provides items for delivery server settings.		
001	FTP Port Num	[0 to 65535 / **3670** / 1 /step]	
	Sets the FTP port number used when image files to the Scan Router Server.		
002	Srv IP (Primary)	Range: **000.000.000.000** to 255.255.255.255	
	Use this SP to set the Scan Router Server address. The IP address under the transfer tab can be referenced by the initial system setting.		
003	Retry Interval	[60 to 999 / **300** / 1 second /step]	
	Specifies the interval time for sending the scanned image data to the deliver server or SMTP/FTP/NCP/SMB server after sending error.		
004	No. of Retries	[0 to 99 / **3** / 1 time/step]	
	Specifies the retry times for sending the scanned image data to the deliver server or SMTP/FTP/NCP/SMB server after sending error.		

006	DeliErr DispTime	[0 to 999 / **300** / 1 second /step]
	Use this setting to determine the length of time the prompt message is displayed when a test error occurs during document transfer with the NetFile application and an external device.	
008	Svr IP (Secondary)	Range: **000.000.000.000** to 255.255.255.255
	Specifies the IP address assigned to the computer designated to function as the secondary delivery server of Scan Router. This SP allows only the setting of the IP address without reference to the DNS setting.	
009	Deli Svr Model	[0 to 4 / **0** / 1 /step]
	Allows changing the model of the delivery server registered by the I/O device. 0: Unknown, 1: SG1 Provided, 2: SG1 Package, 3: SG2 Provided, 4: SG2 Package	
010	Deli Svr Capabty	[0 to 255 / **0** / 1 /step]
	Bit7 = 1 Comment information exits	Changes the capability of the server that is registered as an I/O device.
	Bit6 = 1 Direct specification of mail address possible	
	Bit5 = 1 Mail RX confirmation setting possible	
	Bit4 = 1 Address book automatic update function exists	
	Bit3 = 1 Fax RX delivery function exists	
	Bit2 = 1 Sender password function exists	
	Bit1 = 1 Function to link MK-1 user and Sender exists	
	Bit0 = 1 Sender specification required (if set to 1, Bit6 is set to “0”)	

011	Delivery Svr Cap (Ext)	[0 to 255 / **0** / 1 /step]
	Changes the capability of the server that is registered as an I/O device.	
	Bit7 = 1 Address book usage limitation (Limitation for each authorized user) Bit6 = 1 RDH authorization link Bit5 to 0: Not used	
013	Svr Schm (Primary)	-
	Specifies the scheme of the primary delivery server.	
014	Svr Port Num (Pri)	-
	Specifies the port number of the primary delivery server.	
015	Srv URL Path (Pri)	-
	Specifies the URL path of the primary delivery server.	
016	Svr Schm (Sec)	-
	Specifies the scheme of the secondary delivery server.	
017	Svr Port Num (Sec)	-
	Specifies the port number of the secondary delivery server.	
018	Srv URL Path (Sec)	-
	Specifies the URL path of the secondary delivery server.	
022	Instant Trans Off	[0 or 1 / **1** / -] 0: Disable, 1: Enable
	Enables or disables the prevention function for the continuous data sending.	

5846	UCS Settings	CTL	
	Provides items for delivery server settings.		
001	Machine ID (DelSvy)	Displays ID	
	Displays the unique device ID in use by the delivery server directory. The value is only displayed and cannot be changed. This ID is created from the NIC MAC or IEEE 1394 EUI. The ID is displayed as either 6-byle or 8-byte binary.		
002	MC ID Clr (DelSvy)	Clears ID	
	Clears the unique ID of the device used as the name in the file transfer directory. Execute this SP if the connection of the device to the delivery server is unstable. After clearing the ID, the ID will be established again automatically by cycling the machine off and on.		
003	Maximum Entries	[150 to 999 / **150** / 1 /step]	
	Changes the maximum number of entries that UCS can handle. If a value smaller than the present value is set, the UCS managed data is cleared, and the data (excluding user code information) is displayed.		
006	Delsvr Rtry Tmer	[0 to 255 / **0** / 1 /step]	
	Sets the interval for retry attempts when the delivery server fails to acquire the delivery server address book.		
007	Delsvr Rtry Tmes	[0 to 255 / **0** / 1 /step]	
	Sets the number of retry attempts when the delivery server fails to acquire the delivery server address book.		
008	Delsvr Maxentri	[200 to 999 / **200** / 1/step]	
	Sets the maximum number account entries of the delivery server user information managed by UCS.		

010	LDAP Search Tout	[1 to 255 / **60** / 1 /step]
	Sets the length of the timeout for the search of the LDAP server.	
020	WSD Max Entries	[5 to 255 / **250** / 1 /step]
	Sets the maximum entries for the address book of the WSD (SD-scanner)	
021	Folder Auth chg	[0 or 1 / 0 / -] 0: Login user name 1: address book
041	[AddrB Acl Info] Address Book Access Control List Information	
	This SP must be executed immediately after installation of an HDD unit in a basic machine that previously had no HDD. The first time the machine is powered on with the new HDD installed, the system automatically takes the address book from the NVRAM and writes it onto the new HDD. However, the new address book on the HDD can be accessed only by the system administrator at this stage. Executing this SP by the service technician immediately after power on grants full address book access to all users.	
043	Addr B Media	
	Displays the slot number where an address book data is in.	
047	Ini Local Addr B	Clears the local address book information, including the user code.
048	Ini Deli Addr B	Clears the distribution address book information, except the user code.
049	Ini LDAP Addr B	Clears the LDAP address book information, except the user code.
050	Ini All Addr B	Clears all directory information managed by UCS, including all user codes. Turn the main power switch off and on after executing this SP.

051	Bkup All Addr B	Uploads all directory information to the SD card.
052	Restr All Addr B	Downloads all directory information from the SD card.
053	Clear Backup Info	Deletes the address book data from the SD card in the service slot. Deletes only the files that were uploaded from this machine. This feature does not work if the card is write-protected. **Note:** After you do this SP, go out of the SP mode, and then turn the power off. Do not remove the SD card until the Power LED stops flashing.
060	Search Option	This SP uses bit switches to set up the fuzzy search options for the UCS local address book. Bit0: Checks both upper/lower case characters Bit1: Japan only Bit2 to 7: Not used
062	Compl Opt1(1)	Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to upper case and sets the length of the password. [0 to 32 / 0 / 1 /step]
063	Compl Opt2(1)	Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to lower case and defines the length of the password. [0 to 32 / 0 / 1 /step]

064	Compl Opt3(1)	Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to numbers and defines the length of the password. [0 to 32 / 0 / 1 /step]
065	Compl Opt4(1)	Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to symbols and defines the length of the password. [0 to 32 / 0 / 1 /step]
091	FTP Auth Port Setting	Specifies the FTP port for getting a distribution server address book that is used in the identification mode. [0 to 65535 / 3671 / 1 /step]
094	Encryption Stat	Shows the status of the encryption function for the address book data.

Note (1):

SP5846-062 to SP5846-065 do not normally require adjustment.

These SP modes are enabled only after the system administrator has set up a group password policy to control access to the address book.

5848	Web Service	CTL	-
	SP5848-1 sets the 4-bit switch assignment for the access control setting. Setting of 0001 has no effect on access and delivery from Scan Router. ac: Access Control		
002	Ac: Repo (only Lower 4 Bits)	Switches access control on and off. **0000**: No access control 0001: Denies access to DeskTop Binder.	
004	ac: UD (only Lower 4 bits)		
005	ac: For Cherry (only Lower 4 bits)		
007	ac: Log Fax (Lower 4 bits)		
009	ac: Job Ctrl (Lower 4 bits)		
011	ac: Dev Mng (Lower 4 bits)		
022	ac: Uadmin (Lower 4bits)		
099	DL Image Setting	DFU	
100	Max. Size: DL Image	[1 to 1024/1 K]	
210	Log Type: Job1	Displays the log server settings. These can be adjusted with the Web Image Monitor.	
211	Log Type: Job2		
212	Log Type: Access		
213	Primary Srv		
214	Secondary Srv		
215	Start Time		

216	Interval Time	Specifies the transmit interval. [1 to 1000 / **1** / 1 hour/step] This SP is activated only when SP5848-217 is set to "2 (Transmit periodically)".
217	Timing	Selects the transmit timing. [0 to 2 / **0** / 1/step] 0: No Transmit, 1: Transmit one by one 2: Transmit periodically

5849	Installation Date	CTL	
	Displays or prints the installation date of the machine.		
001	Display	The “Counter Clear Day” has been changed to “Installation Date” or “Inst. Date”.	
002	Print	Determines whether the installation date is printed on the printout for the total counter. [0 or 1/ **1 /** 1/step] 0: Off (No Print), 1: On (Print)	
003	Total Counter	Displays the total counter when the installation date is registered to the machine.	

5851	Bluetooth		
001	Mode	CTL	Sets the operation mode for the Bluetooth Unit. Press either key. **0** :Public, 1: Private

5856	Remote ROM Update		
	Allows the technician to upgrade the firmware using a parallel cable when updating the remote ROM.		
002	Local Port	CTL	[0 or 1 / **0** / 1/step] **0**: Disallow 1: Allow

5857	Debug Log Save	CTL	-
001	ON/OFF	0: OFF, 1: ON	
	Switches the debug log feature on and off. The debug log cannot be captured until this feature is switched on.		
002	Target (2: HDD 3: SD)		
	Selects the destination where the debugging information generated by the event selected by SP5858 will be stored if an error is generated [2 to 3 /1] 2: HDD 3: SD Card		
005	Save to HDD		
	Specifies the decimal key number of the log to be written to the hard disk.		
006	Save to SD Card		
	Specifies the debug log number for saving to an SD card.		

009	HDD to SD Card Latest
	Takes the most recent 4 MB of the log written to the hard disk and copies them to the SD Card. A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card.
010	HDD to SD Any
	Takes the log of the specified key from the log on the hard disk and copies it to the SD Card. A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4 MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card. This SP does not execute if there is no log on the HDD with no key specified.
011	Erase HDD Debug Data
	Erases all debug logs on the HDD
012	Erase SD Debug
	Erases SD debug logs in the SD card. Turn off and on after executing this SP.
013	Dsply-SD Space
	Displays the remaining space in the SD card.
014	SD to SD Latest (Latest 4 MB)
	Saves the debug log (latest 4 MB) in memory to the SD card. A unique file name is generated to avoid overwriting existing file names on the SD card. Up to 4MB can be copied to the SD card. 4 MB segments can be copied one by one to the SD card.

015	SD to SD Any (Latest 4 MB Any Key)
	Saves the specified debug log (with SP5-857-006) in memory to the SD card. A unique file name is generated to avoid overwriting existing file names on the SD card. Up to 4MB can be copied to the SD card. 4 MB segments can be copied one by one to the SD card.
016	Make HDD Debug
	This SP creates a 32 MB file to store a log on the HDD.
017	Make SD Debug
	Executes the making of a file (4MB) for saving debug logs.

5858	Debug Log Save: SC	CTL	-
	These SPs select the content of the debugging information to be saved to the destination selected by SP5857-2. SP5858-3 stores one SC specified by number. Refer to the chapter "Trouble Shooting" for a list of SC error codes.		
001	Engine SC	Turns the save function on/off for SC codes generated by copier engine errors. [0 or 1 / **0** / 1/ step] 0: OFF, 1: ON	
002	Controller SC	Turns the save function on/off for SC codes generated by GW controller errors. [0 or 1 / **0** / 1/ step] 0: OFF, 1: ON	
003	Any SC	[0 to 65535 / **0** / 1 /step]	

004	Jam	Turns the save function on/off for jam errors. [0 or 1 / **0** / 1/ step] 0: OFF, 1: ON

5859	Debug Log Save Key	CTL	-
001	Key 1	These SPs allow you to set up to 10 keys for log files for functions that use common memory on the controller board. [–9999999 to 9999999 / **0** / –]	
002	Key 2		
003	Key 3		
004	Key 4		
005	Key 5		
006	Key 6		
007	Key 7		
008	Key 8		
009	Key 9		
010	Key 10		

5860	SMTP/POP3/IMAP4	CTL	-
020	Par Mail Rec Tout	[1 to 168 / **72** / 1 hour/step]	
	Sets the amount of time to wait before saving mail that breaks up during reception. The received mail is discarded if the remaining portion of the mail is not received during this prescribed time.		
021	MDN Res RFC2298	[0 to 1 / **1** / –]	
	Determines whether RFC2298 compliance is switched on for MDN reply mail. 0: No, 1: Yes		

022	SMTP Aut Field Rep	[0 to 1 / **0** / –]
	Determines whether the FROM item of the mail header is switched to the validated account after the SMTP server is validated. 0: No. "From" item not switched. 1: Yes. "From" item switched.	
025	SMTP Aut. Direct Set	[0 or 1 / **0** / –]
	Selects the authentication method for SMPT. **Bit switch:** ▪ Bit 0: LOGIN ▪ Bit 1: PLAIN ▪ Bit 2: CRAM MD5 ▪ Bit 3: DIGEST MD5 ▪ Bit 4 to 7: Not used Note ▪ This SP is activated only when SMTP authorization is enabled by UP mode.	
026	S/MINE Header	

5866	E-mail Report		
001	Report Validity	-	[0 or 1 / **0** / –] 0: Enabled, 1: Disabled
	Enables or disables the E-mail alert function.		
005	Add Date Field	CTL	[0 or 1 / **0** / –] 0: Not add, 1: Add
	Adds or does not add the date field to the header of the alert mail.		

5869	RAM Disk Setting		
001	Mail Function	GWINIT	[0 or 1 / **0** / -] 0: ON, 1: OFF
	Turns on or off the e-mail function.		

5870	Common Key Info Writing		
001	Writing	CTL	Writes to flash ROM the common proof for validating the device for @Remote specifications.
003	Initialize	CTL	Formats the common proof area of the flash ROM. **FA**

⇒

5873	SD Card Appli Move	
001	Move Exec	This SP copies the application programs from the original SD card in SD card slot 2 to an SD card in SD card slot 1.
002	Undo Exec	This SP copies back the application programs from an SD card in the SD Card Slot 2 to the original SD card in the SD card slot 1. Use this menu when you have mistakenly copied some programs by using "Move Exec" (SP5873-1).

5875	SC Auto Reboot		
001	Reboot Mode	CTL	Enables or disables the automatic reboot function when an SC error occurs. [0 or 1 / **0** / –] 0: The machine reboots automatically when the machine issues an SC error and logs the SC error code. If the same SC occurs again, the machine does not reboot. 1: The machine does not reboot when an SC error occurs. The reboot is not executed for Type A, B or C SC codes.
002	Reboot Method	CTL	Selects the reboot method for SC. [0 or 1 / **0** / -] 0: Manual reboot, 1: Automatic reboot

5878	Option Setup		
001	Data Overwrite Security	-	Enables the Data Overwrite Security unit. Press "EXECUTE" on the operation panel. Then turn the machine off and on.
002	Encryption Option	-	

5881	Delete Fixed Sent		
001	Delete Fixed Sent	-	Deletes the fixed form sentence.

5885	Set WIM Function
200	Detect Mem Leak
201	DocSvr Timeout

5887	SD GetCounter **SSP**
001	This SP saves the counter list of the machine to an SD card in the slot 3. The folder of "SD_COUNTER" must be made in an SD card for this SP.

5888*	Person Info Prot
	Selects the protection level for logs. [0 to 1 / **0** / 1} 0: No authentication, No protection for logs 1: No authentication, Protected logs (an administrator can see the logs)

5893	**[SDK Apli Cnt Name]**	*CTL	-
	Displays the counter name of each SDK application.		
001	SDK-1		
002	SDK-2		
003	SDK-3		
004	SDK-4		
005	SDK-5		
006	SDK-6		

5902	Test Pattern Print
5902 1	☛ "Test Pattern Print" in this section.

5907*	Plug & Play
5907 1	Selects the brand name and production name for the Plug and Play function. These names are stored in the NVRAM. When the NVRAM data is corrupted, select these names once again. Use the right-arrow or left-arrow key to scroll through the list of brand names. To select a brand name, press the OK key. An asterisk (*) indicates which manufacture is currently selected.

5912*	PCU Alarm Counter	[0 to 255 / 45 / 1/step]
5912 1	Printout	
	Specifies the PCU alarm level. The PCU alarm is issued when the following condition is met: PAc x 1000 >= PCUc where PAc is the value specified in this SP and PCUc is the PCU counter. When you specify 0 (zero), the PCU alarm is deactivated.	

5913	Switch Permission
002	Print Application
	Sets the length of time to elapse before allowing another application to take control of the display when the application currently controlling the display is not operating because a key has not been pressed. [3 to 30 / **3** / 1 second/step]

5974	Cherry Server
001	Selects which version of the Scan Router application program, “Light” or “Full (Professional)”, is installed. [0 to 1 / **0** / 1 /step] 0: Light version (supplied with this machine) 1: Full version (optional)

5985	Device Setting	
	The NIC and USB support features are built into the GW controller. Use this SP to enable and disable these features. In order to use the NIC and USB functions built into the controller board, these SP codes must be set to "1".	
001	On Board NIC	[0 to 2 / **0** / 1 /step] 0: OFF, 1: ON, 2: ON: Limited When the "Function limitation" is set, "On board NIC" is limited only for the @Remote or LDAP/NT authentication. Note ▪ Other network applications than @Remote or LDAP/NT authentication are not available when this SP is set to "2". Even if you can change the initial settings of those network applications, settings may not actually work.
002	On Board USB	[0 or 1 / **0** / 1/step] 0: OFF, 1: ON

5990	SP Print Mode	SMC Print
	In the SP mode, press Copy Window to move to the copy screen, select the paper size, then press Start. Select A4/LT (Sideways) or larger to ensure that all the information prints. Press SP Window to return to the SP mode, select the desired print, and press "EXECUTE".	
001	All (Data List)	
002	SP (Mode Data List)	
003	User Program	
004	Logging Data	
005	Diagnostic Report	
006	Non-Default (Prints only SPs set to values other than defaults.)	
007	NIB Summary	
021	Copier UP	
022	Scanner SP	
023	Scanner UP	

5998	Engine Memory Clear
001	See the section "Memory Clear" in this chapter.

SP6-XXX (Peripherals)

6006*	ADF Adjustment (☛ "DF Image Adjustment" in the "Adjusting Copy Image Area") **NOTE:** Available menus depend on the machine model and its configuration.	
001	StoS/Front Regist	[–5.0 to +5.0 / **0.0** / 0.1 mm/step]
	Adjusts the side-to-side registration for the front side of the original, for ARDF mode. Use the C key to select "+" or "–" before entering the value	
002	Leading Regist	[–5.0 to +5.0 / **0.0** / 0.1 mm/step]
	Adjusts the leading edge registration for ARDF mode. Use the C key to select "+" or "–" before entering the value.	
003	Trailing Erase	[–3.0 to +3.0 / **–1.5** / 0.1 mm/step]
	Adjusts the trailing edge erase margin for ARDF mode. Use the C key to select "+" or "–" before entering the value.	
004	S to S/ Rear Regist	[–5.0 to +5.0 / **0.0** / 0.1 mm/step]
	Adjusts the side-to-side registration for the 2nd side of the original, for ARDF mode. Use the C key to select "+" or "–" before entering the value	
005	Sub-scan Magnif	[–0.9 to +0.9 / **0.0** / 0.1 %/step]
	Adjusts the sub-scan magnification for the ARDF.	
006	Origin Curl Adj	[0 = No / **1** = Yes]
	Turns on or off the skew correction at 2nd side scanning. This SP is activated only when the duplex mode is selected.	
007	Skew Correction	[–20 to +20 / **0.0** / 1 mm/step]
	Adjusts the original buckle for the skew correction at 2ns side scanning. This SP is activated only when SP6-006-006 is set to "1 (Yes)".	

6009	ADF Free Run	
001	Duplex Mode	
	Performs an ARDF free run in duplex scanning mode. Press "ON" to start; press "OFF" to stop.	
003	Simplex Mode	
	Performs an ARDF free run at simplex scanning mode. Press "ON" to start; press "OFF" to stop.	

6910*	ADF Shading Time	[0 to 60 / **30** / 1 s/step]
001	Adjusts the interval used for the shading processing in the ARDF mode. Light and heat in the room may affect the scanner response. Reduce this setting if copy quality indicates that the white level is drifting during ARDF copy jobs.	

6930*	ADF Hole Setting	[0 or 1 / **0** / -] **0**: No, 1: Yes
001	Enables or disables the ADF hole setting. When "1: Yes" is selected, the machine prevents feed jams of the punched originals in the ARDF.	

SP7-XXX (Data Log)

7001*	Total Operation
001	Displays the total operation time (total drum rotation time).

7401*	Total SC Counter	[0 to 9999 / **0** / 1/step]
001	Displays how many times SC codes are generated.	

7403*	SC History	
001	Latest	Displays the most recent 10 service calls.
002	Latest 1	
003	Latest 2	
004	Latest 3	
005	Latest 4	
006	Latest 5	
007	Latest 6	
008	Latest 7	
009	Latest 8	
010	Latest 9	

7502*	Counter–Paper Jam	[0 to 9999 / **0** / 1/step]
001	Displays the total number of copy paper jams.	

7503*	Counter–Orgn Jam	[0 to 9999 / **0** / 1/step]
001	Displays the total number of original jams,	

7504*	Paper Jam/Loc	[0 to 9999 / **0** / 1/step]
	Displays the total number of the paper jams classified by timing and location.	
001	At power on	
	Paper jam occurs at power on.	
010	Regist NoFeed: OFF	
	Paper does not reach the registration sensor (from a paper tray).	
011	1 Vertical SN: OFF	
	Paper does not reach the relay sensor.	
012	1 Vertical SN: ON	
	Paper is caught at the relay sensor.	
021	Vertical SN: OFF	
	Paper does not reach the vertical transport sensor.	
022	Vertical SN: ON	
	Paper is caught at the vertical transport sensor.	
050	Regist Bypass: OFF	
	Paper does not reach the registration sensor (from the by-pass tray).	

System Service Mode (F/SPF: D068/D069)

060	Regist Duplex: OFF
	Paper does not reach the registration sensor during reverse-side printing (for duplex printing).
070	Regist SN: ON
	Paper is caught at the registration sensor.
120	1 Exit SN: ON
	Paper is caught at the exit sensor (previous page).
121	Exit SN: OFF
	Paper does not reach the exit sensor.
122	2 Exit SN: ON
	Paper is caught at the exit sensor.
123	Dup Inverter: OFF
	Paper does not reach the duplex inverter sensor (from the registration roller).
125	Dup Inverter: ON
	Paper is caught at the duplex inverter sensor.

7505	Original Jam Location
	Displays the total number of original jams by location. These jams occur when the original does not activate the sensors. **Note** ▪ Lag. Jam occurs when the paper remains at the sensor for longer than the prescribed time. ▪ Late: Jam occurs because paper fails to arrive at the prescribed time.
210	Regist SN: OFF
211	Regist SN: ON
212	Paper Exit SN: OFF
213	Paper Exit SN: ON
214	Inverter: OFF
215	Inverter: ON

7506	[Paper Jam/ Size] Jam Counter: Paper Size		
006	A5 LEF	CTL	Displays the number of jams according to the paper size. [0 to 9999 / **0** / 1 sheet/step]
044	HLT LEF		
133	A4 SEF		
134	A5 SEF		
142	B5 SEF		
164	LG SEF		
166	LT SEF		
172	HLT SEF		
255	Others		

System Service Mode (F/SPF: D068/D069)

7507*	Dsply-P Jam Hist	
001	Lastest	Displays the copy jam history (the most recent 10 jams) Sample Display: CODE:007 SIZE:05h TOTAL:0000334 DATE: Mon Mar 15 11:44:50 2000 where: CODE is the SP7504-*** number (see above. SIZE is the ASAP paper size code in hex. TOTAL is the total jam error count (SP7502) DATE is the date the jams occurred.
002	Latest 1	
003	Latest 2	
004	Latest 3	
005	Latest 4	
006	Latest 5	
007	Latest 6	
008	Latest 7	
009	Latest 8	
010	Latest 9	

Size	Code	Size	Code	Size	Code
A4 (S)	05	A3 (L)	84	DLT (L)	A0
A5 (S)	06	A4 (L)	85	LG (L)	A4
B5 (S)	0E	A5 (L)	86	LT (L)	A6
LT (S)	26	B4 (L)	8D	HLT (L)	AC
HLT (S)	2C	B5 (L)	8E	Others	FF

7508*	Dsply-O Jam History	
001	Lastest	Displays the original jam history (the most recent 10 jams). Sample Display: CODE:007 SIZE:05h TOTAL:0000334 DATE: Mon Mar 15 11:44:50 2000 where: CODE is the SP7505*** number (see above. SIZE is the ASAP paper size code in hex. TOTAL is the total error count (SP7503) DATE is the date the jams occurred.
002	Last 1	
003	Last 2	
004	Last 3	
005	Last 4	
006	Last 5	
007	Last 6	
008	Last 7	
009	Last 8	
010	Last 9	

7624	Part Replacement
001	PCU
	Selects the PM maintenance for PCU.

7801	Memory/Version/PN
255	-
	Displays the he part number and version of all ROMs in the machine

7803*	PM Counter	
001	Paper	Displays the PM counter.

7804	PM Count Reset
001	Paper
	Resets the PM counter (SP7-803-001). When the program ends normally, the message "Completed" is displayed.

7807	Reset–SC/Jam
001	Resets the SC, paper, original, and total jam counters. When the program ends normally, the message "Completed" is displayed. SP7-807-1 does not reset the following logs: SP7-507 (Display-Paper Jam History) and SP7-508 (Display-Original Jam History).

7826	MF Error Counter **Japan Only**	
	Displays the number of counts requested of the card/key counter.	
001	Error Total	A request for the count total failed at power on. This error will occur if the device is installed but disconnected.
002	Error Staple	The request for a staple count failed at power on. This error will occur if the device is installed but disconnected.

7827	MF Error Counter Clear
	Press Execute to reset to 0 the values of SP7826. **Japan Only**

7832*	Display-Self-Diag
001	Displays the SC codes and the number of their occurrences. Each number is in the range of 0 to 9999.

7836	**[Resident Memory]**		
	Displays the contents of the memory on the controller board.		

7901	Assert Info		
	Records the location where a problem is detected in the program. The data stored in this SP is used for problem analysis. **DFU**		
001	File Name	-	-
002	Number of Lines	-	-
003	Location	-	-

7991*	Dsply–Info Count
	Displays the total operating time or the total number of operations. The time is displayed in the following format: day: hour: minute: second.
003	Dsply-ID S Work
	The total of the time when the ID sensor is working.
004	Dsply-Dev Counter
	The total number of paper outputs.
005	Dsply-ID Er Count
	The total number of ID-sensor errors.

7992*	Reset-Info Count
004	Reset-Dev Count
	Clears the development counter (SP7-991-004).
005	Reset-ID Er Count
	Clears the ID sensor error counter (SP7-991-005).

SP8-XXX (History)

Most of the SPs in this group are prefixed with a letter that indicates the mode of operation (the mode of operation is referred to as an “application”). Before reading the Group 8 Service Table, make sure that you understand what these prefixes mean.

Prefixes	What it means	
T:	Total: (Grand Total).	Grand total of the items counted for all applications (C, F, P, etc.)..
C:	Copy application.	Totals (pages, jobs, etc.) executed for each application when the job was not stored on the document server.
F:	Fax application.	
P:	Print application.	
S:	Scan application.	
O:	Other applications (external network applications, for example)	Refers to network applications such as Web Image Monitor. Utilities developed with the SDK (Software Development Kit) will also be counted with this group in the future.

The Group 8 SP codes are limited to 17 characters, forced by the necessity of displaying them on the small LCDs of printers and faxes that also use these SPs. Read over the list of abbreviations below and refer to it again if you see the name of an SP that you do not understand.

Key for Abbreviations

System Service Mode (F/SPF: D068/D069)

Abbreviation	What it means
/	"By", e.g. "T:Jobs/Apl" = Total Jobs "by" Application
>	More (2> "2 or more", 4> "4 or more"
AddBook	Address Book
Apl	Application
B/W	Black & White
Bk	Black
C	Cyan
ColCr	Color Create
ColMode	Color Mode
Comb	Combine
Comp	Compression
Deliv	Delivery
DesApl	Designated Application. The application (Copy, Fax, Scan, Print) used to store the job on the document server, for example.
Dev Counter	Development Count, no. of pages developed.
Dup, Duplex	Duplex, printing on both sides
Emul	Emulation
FC	Full Color
FIN	Post-print processing, i.e. finishing (punching, stapling, etc.)
Full Bleed	No Margins
GenCopy	Generation Copy Mode

Abbreviation	What it means
GPC	Get Print Counter. For jobs 10 pages or less, this counter does not count up. For jobs larger than 10 pages, this counter counts up by the number that is in excess of 10 (e.g., for an 11-page job, the counter counts up 11-10 =1)
IFax	Internet Fax
ImgEdt	Image Edit performed on the original with the copier GUI, e.g. border removal, adding stamps, page numbers, etc.
K	Black (YMCK)
LS	Local Storage. Refers to the document server.
LSize	Large (paper) Size
Mag	Magnification
MC	One color (monochrome)
NRS	NRS (@Remote), which allows a service center to monitor machines remotely. “@Remote” is used overseas; “CSS” is used in Japan.
Org	Original for scanning
OrgJam	Original Jam
Palm 2	Print Job Manager/Desk Top Editor: A pair of utilities that allows print jobs to be distributed evenly among the printers on the network, and allows files to moved around, combined, and converted to different formats.
PC	Personal Computer

System Service Mode (F/SPF: D068/D069)

Abbreviation	What it means
PGS	Pages. A page is the total scanned surface of the original. Duplex pages count as two pages, and A3 simplex count as two pages if the A3/DLT counter SP is switched ON.
PJob	Print Jobs
Ppr	Paper
PrtJam	Printer (plotter) Jam
PrtPGS	Print Pages
R	Red (Toner Remaining). Applies to the wide format model A2 only. This machine is under development and currently not available.
RCG	Remote Communication Gate
Rez	Resolution
SC	Service Code (Error SC code displayed)
Scn	Scan
Sim, Simplex	Simplex, printing on 1 side.
S-to-Email	Scan-to-E-mail
SMC	SMC report printed with SP5990. All of the Group 8 counters are recorded in the SMC report.
Svr	Server
TonEnd	Toner End
TonSave	Toner Save

Abbreviation	What it means
TXJob	Send, Transmission
YMC	Yellow, Magenta, Cyan
YMCK	Yellow, Magenta, Cyan, Black

Note

- All of the Group 8 SPs are reset with SP5 801 1 Memory All Clear.

8 191	T:Total Scan PGS	CTL	These SPs count the pages scanned by each application that uses the scanner to scan images. [0 to 99999999 / **0** / 1]
8 192	C:Total Scan PGS	CTL	
8 193	F:Total Scan PGS	CTL	
8 195	S:Total Scan PGS	CTL	

- SP 8 191 to 8 196 count the number of scanned sides of pages, not the number of physical pages.
- These counters do not count reading user stamp data, or reading color charts to adjust color.
- Previews done with a scanner driver are not counted.
- A count is done only after all images of a job have been scanned.
- Scans made in SP mode are not counted.

Examples

- If 3 B5 pages and 1 A3 page are scanned with the scanner application but not stored, the S: count is 4.
- If both sides of 3 A4 sheets are copied and stored to the document server using the Store File button in the Copy mode window, the C: count is 6 and the L: count is 6.
- If both sides of 3 A4 sheets are copied but not stored, the C: count is 6.
- If you enter document server mode then scan 6 pages, the L: count is 6.

8 201	T:LSize Scan PGS	CTL	[0 to 99999999 / **0** / 1]
	These SPs count the total number of large pages input with the scanner for scan and copy jobs. Large size paper (A3/DLT) scanned for fax transmission is not counted. Note ▪ These counters are displayed in the SMC Report, and in the User Tools display.		
8 203	F:LSize Scan PGS	CTL	[0 to 99999999 / **0** / 1]
	These SPs count the number of large pages scanned by original type for Fax jobs.		
8 205	S:LSize Scan PGS	CTL	[0 to 99999999 / **0** / 1]
	These SPs count the total number of large pages input with the scanner for scan jobs only. Large size paper (A3/DLT) scanned for fax transmission are not counted. Note ▪ These counters are displayed in the SMC Report, and in the User Tools display.		

8 221	ADF Org Feeds	CTL	[0 to 99999999 / **0** / 1]
	These SPs count the number of pages fed through the ADF for front and back side scanning.		
001	Front	Number of front sides fed for scanning: With an ADF/ARDF that can scan both sides simultaneously, the Front side count is the same as the number of pages fed for either simplex or duplex scanning. With an ADF/ARDF that cannot scan both sides simultaneously, the Front side count is the same as the number of pages fed for duplex front side scanning. (The front side is determined by which side the user loads face up.)	
002	Back	Number of rear sides fed for scanning: With an ADF/ARDF that can scan both sides simultaneously, the Back count is the same as the number of pages fed for duplex scanning. With an ADF/ARDF that cannot scan both sides simultaneously, the Back count is the same as the number of pages fed for duplex rear-side scanning.	

- When 1 sheet is fed for duplex scanning the Front count is 1 and the Back count is 1.
- If a jam occurs during the job, recovery processing is not counted to avoid double counting. Also, the pages are not counted if the jam occurs before the first sheet is output.

8 281	T:Scan PGS/TWAIN	CTL	These SPs count the number of pages scanned using a TWAIN driver. These counters reveal how the TWAIN driver is used for delivery functions. [0 to 99999999 / **0** / 1] Note ▪ At the present time, these counters perform identical counts.
8 285	S:Scan PGS/TWAIN	CTL	

8 291	T:Scan PGS/Stamp	CTL	These SPs count the number of pages stamped with the stamp in the ADF unit. [0 to 99999999 / **0** / 1]
8 293	F:Scan PGS/Stamp	CTL	
8 295	S:Scan PGS/Stamp	CTL	

8 301	T:Scan PGS/Size	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by size the total number of pages scanned by all applications. Use these totals to compare original page size (scanning) and output (printing) page size [SP 8-441].		
8 302	C:Scan PGS/Size	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by size the total number of pages scanned by the Copy application. Use these totals to compare original page size (scanning) and output (printing) page size [SP 8-442].		
8 303	F:Scan PGS/Size	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by size the total number of pages scanned by the Fax application. Use these totals to compare original page size (scanning) and output page size [SP 8-443].		

8 305	S:Scan PGS/Size	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by size the total number of pages scanned by the Scan application. Use these totals to compare original page size (scanning) and output page size [SP 8-445].		
001	A3	-	
002	A4		
003	A5		
004	B4		
005	B5		
006	DLT		
007	LG		
008	LT		
009	HLT		
010	Full Bleed		
254	Other (Standard)		
255	Other (Custom)		

8 381	T:Total PrtPGS	CTL	These SPs count the number of pages printed by the customer. The counter for the application used for storing the pages increments. [0 to 99999999 / **0** / 1]
8 382	C:Total PrtPGS	CTL	
8 383	F:Total PrtPGS	CTL	
8 384	P:Total PrtPGS	CTL	
8 385	S:Total PrtPGS	CTL	
8 387	O:Total PrtPGS	CTL	

- When the A3/DLT double count function is switched on with SP5104, 1 A3/DLT page is counted as 2.
- When several documents are merged for a print job, the number of pages stored is counted for the application that stored them.
- These counters are used primarily to calculate charges on use of the machine, so the following pages are not counted as printed pages:
  Blank pages in a duplex printing job.
  Blank pages inserted as document covers, chapter title sheets, and slip sheets.
  Reports printed to confirm counts.
  All reports done in the service mode (service summaries, engine maintenance reports, etc.)
  Test prints for machine image adjustment.
  Error notification reports.
  Partially printed pages as the result of a copier jam.

8 391	LSize PrtPGS	CTL	[0 to 99999999 / **0** / 1]
	These SPs count pages printed on paper sizes A3/DLT and larger. Note ▪ In addition to being displayed in the SMC Report, these counters are also displayed in the User Tools display on the copy machine.		

8 411	Prints/Duplex	CTL	This SP counts the amount of paper (front/back counted as 1 page) used for duplex printing. Last pages printed only on one side are not counted. [0 to 99999999 / **0** / 1]

8 421	T:PrtPGS/Dup Comb	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing. This is the total for all applications.		
8 422	C:PrtPGS/Dup Comb	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by binding and combining, and n-Up settings the number of pages processed for printing by the copier application.		
8 423	F:PrtPGS/Dup Comb	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by binding and combining, and n-Up settings the number of pages processed for printing by the fax application.		
8 424	P:PrtPGS/Dup Comb	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by binding and combining, and n-Up settings the number of pages processed for printing by the printer application.		
8 425	S:PrtPGS/Dup Comb	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by binding and combining, and n-Up settings the number of pages processed for printing by the scanner application.		
8 427	O:PrtPGS/Dup Comb	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by binding and combining, and n-Up settings the number of pages processed for printing by Other applications		
001	Simplex> Duplex	-	
002	Duplex> Duplex	-	
003	Book> Duplex	-	
004	Simplex Combine	-	
005	Duplex Combine	-	
006	2>	2 pages on 1 side (2-Up)	
007	4>	4 pages on 1 side (4-Up)	

008	6>	6 pages on 1 side (6-Up)
009	8>	8 pages on 1 side (8-Up)
010	9>	9 pages on 1 side (9-Up)
011	16>	16 pages on 1 side (16-Up)
012	Booklet	-
013	Magazine	-

- These counts (SP8-421 to SP8-427) are especially useful for customers who need to improve their compliance with ISO standards for the reduction of paper consumption.
- Pages that are only partially printed with the n-Up functions are counted as 1 page.
- Here is a summary of how the counters work for Booklet and Magazine modes:

Booklet		**Magazine**	
Original Pages	**Count**	**Original Pages**	**Count**
1	1	1	1
2	2	2	2
3	2	3	2
4	2	4	2
5	3	5	4
6	4	6	4
7	4	7	4
8	4	8	4

8 441	T:PrtPGS/Ppr Size	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by print paper size the number of pages printed by all applications.		
8 442	C:PrtPGS/Ppr Size	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by print paper size the number of pages printed by the copy application.		
8 443	F:PrtPGS/Ppr Size	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by print paper size the number of pages printed by the fax application.		
8 444	P:PrtPGS/Ppr Size	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by print paper size the number of pages printed by the printer application.		
8 445	S:PrtPGS/Ppr Size	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by print paper size the number of pages printed by the scanner application.		

8 447	O:PrtPGS/Ppr Size	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by print paper size the number of pages printed by Other applications.		
001	A3	-	
002	A4		
003	A5		
004	B4		
005	B5		
006	DLT		
007	LG		
008	LT		
009	HLT		
010	Full Bleed		
254	Other (Standard)	-	
255	Other (Custom)		

- These counters do not distinguish between LEF and SEF.

8 451	PrtPGS/Ppr Tray	CTL	[0 to 99999999 / **0** / 1]
	These SPs count the number of sheets fed from each paper feed station.		
001	Bypass	Bypass Tray	
002	Tray 1	Copier	
003	Tray 2	Copier	
004	Tray 3	Copier	
005	Tray 4	Currently not used.	
006	Tray 5	Currently not used.	
007	Tray 6	Currently not used.	
008	Tray 7	Currently not used.	
009	Tray 8	Currently not used.	
010	Tray 9	Currently not used.	
011	Tray 10	Currently not used.	
012	Tray 11	Currently not used.	
013	Tray 12	Currently not used.	
014	Tray 13	Currently not used.	
015	Tray 14	Currently not used.	
016	Tray 15	Currently not used.	

8 461	T:PrtPGS/Ppr Type	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by paper type the number pages printed by all applications. ▪ These counters are not the same as the PM counter. The PM counter is based on feed timing to accurately measure the service life of the feed rollers. However, these counts are based on output timing. ▪ Blank sheets (covers, chapter covers, slip sheets) are also counted. ▪ During duplex printing, pages printed on both sides count as 1, and a page printed on one side counts as 1.		
8 462	C:PrtPGS/Ppr Type	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by paper type the number pages printed by the copy application.		
8 463	F:PrtPGS/Ppr Type	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by paper type the number pages printed by the fax application.		
8 464	P:PrtPGS/Ppr Type	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by paper type the number pages printed by the printer application.		
001	Normal		
002	Recycled		
003	Special		
004	Thick		
005	Normal (Back)		
006	Thick (Back)		
007	OHP		
008	Other		

8 521	T:PrtPGS/FIN	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by finishing mode the total number of pages printed by all applications.		
8 522	C:PrtPGS/FIN	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by finishing mode the total number of pages printed by the Copy application.		
8 523	F:PrtPGS/FIN	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by finishing mode the total number of pages printed by the Fax application. Note ▪ Print finishing options for received faxes are currently not available.		
8 524	P:PrtPGS/FIN	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by finishing mode the total number of pages printed by the Print application.		
8 525	S:PrtPGS/FIN	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by finishing mode the total number of pages printed by the Scanner application.		
001	Sort		
002	Stack		
003	Staple		
004	Booklet		
005	Z-Fold		
006	Punch		
007	Other		

Note

- If stapling is selected for finishing and the stack is too large for stapling, the unstapled pages are still counted.
- The counts for staple finishing are based on output to the staple tray, so jam recoveries are counted.

8 581	T:Counter	CTL	[0 to 99999999 / **0** / 1]
	This SP counts the total output broken down by color output, regardless of the application used. In addition to being displayed in the SMC Report, these counters are also displayed in the User Tools display on the copy machine.		
001	Total		

8 591	O:Counter	CTL	[0 to 99999999 / **0** / 1]
8 591 1	A3/DLT	These SPs count the totals for A3/DLT paper use, number of duplex pages printed, and the number of staples used. These totals are for Other (O:) applications only.	
8 591 2	Duplex		

8 601	Cvg Counter	CTL	[0 to 99999999 / **0** / 1]
8 601 1	Cvg: BW %	Displays the total coverage of each mode.	
8 601 11	Cvg: BW Pages	Displays the number of the printouts in each mode.	

8 631	T:FAX TX PGS	CTL	[0 to 99999999 / **0** / 1]
	This SP counts by color mode the number of pages sent by fax to a telephone number.		
8 633	F:FAX TX PGS	CTL	[0 to 99999999 / **0** / 1]
	This SP counts by color mode the number of pages sent by fax to a telephone number.		
001	B/W		

- If a document has color and black-and-white pages mixed, the pages are counted separately as B/W or Color.
- At the present time, this feature is provided for the Fax application only so SP8631 and SP8633 are the same.
- The counts include error pages.
- If a document is sent to more than one destination with a Group transmission, the count is done for each destination.
- Polling transmissions are counted but polling RX are not.
- Relay, memory, and confidential mailbox transmissions and are counted for each destination.

8 641	T:IFAX TX PGS	CTL	[0 to 99999999 / **0** / 1]
	This SP counts by color mode the number of pages sent by fax to as fax images using I-Fax.		
8 643	F:IFAX TX PGS	CTL	[0 to 99999999 / **0** / 1]
	This SP counts by color mode the number of pages sent by Fax as fax images using I-Fax.		
001	B/W		

- If a document has color and black-and-white pages mixed, the pages are counted separately as B/W or Color.
- At the present time, this feature is provided for the Fax application only so SP8641 and SP8643 are the same.
- The counts include error pages.
- If a document is sent to more than one destination with a Group transmission, the count is done for each destination.
- Polling transmissions are counted but polling RX are not.
- Relay, memory, and confidential mailbox transmissions and are counted for each destination.

8 651	T:S-to-Email PGS	CTL	[0 to 99999999 / **0** / 1]
	This SP counts by color mode the total number of pages attached to an e-mail for both the Scan and document server applications.		
8 655	S:S-to-Email PGS	CTL	[0 to 99999999 / **0** / 1]
	This SP counts by color mode the total number of pages attached to an e-mail for the Scan application only.		
001	B/W		
002	Color		

Note

- The count for B/W and Color pages is done after the document is stored on the HDD. If the job is cancelled before it is stored, the pages are not counted.
- If Scan-to-Email is used to send a 10-page document to 5 addresses, the count is 10 (the pages are sent to the same SMTP server together).
- If Scan-to-PC is used to send a 10-page document to 5 folders, the count is 50 (the document is sent to each destination of the SMB/FTP server).
- Due to restrictions on some devices, if Scan-to-Email is used to send a 10-page document to a large number of destinations, the count may be divided and counted separately. For example, if a 10-page document is sent to 200 addresses, the count is 10 for the first 100 destinations and the count is also 10 for the second 100 destinations, for a total of 20.).

8 661	T:Deliv PGS/Svr	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by color mode the total number of pages sent to a Scan Router server by both Scan and LS applications.		
8 665	S:Deliv PGS/Svr	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by color mode the total number of pages sent to a Scan Router server by the Scan application.		
001	B/W		
002	Color		

Note

- The B/W and Color counts are done after the document is stored on the HDD of the Scan Router server.
- If the job is canceled before storage on the Scan Router server finishes, the count is not done.
- The count is executed even if there is confirmation of the arrival at the Scan Router server.

8 671	T:Deliv PGS/PC	CTL	[0 to 99999999/ **0** / 1]
	These SPs count by color mode the total number of pages sent to a folder on a PC (Scan-to-PC) with the Scan and LS applications.		
8 675	S:Deliv PGS/PC	CTL	[0 to 99999999 / **0** / 1]
	These SPs count by color mode the total number of pages sent with Scan-to-PC with the Scan application.		
001	B/W		
002	Color		

Note

- Print jobs done with Web Image Monitor and Desk Top Binder are added to the count.
- If several documents are merged for sending, the number of pages stored are counted for the application that stored them.
- When several documents are sent by a Fax broadcast, the F: count is done for the number of pages sent to each destination.

8 681	T:PCFAX TXPGS	CTL	These SPs count the number of pages sent by PC Fax. These SPs are provided for the Fax application only, so the counts for SP8-681 and SP8-683 are the same. [0 to 99999999 / **0** / 1]
8 683	F:PCFAX TXPGS	CTL	

- This counts pages sent from a PC using a PC fax application, from the PC through the copier to the destination.
- When sending the same message to more than one place using broadcasting, the pages are only counted once. (For example, a 10-page fax is sent to location A and location B. The counter goes up by 10, not 20.)

8 701	TX PGS/Port	CTL	[0 to 99999999 / **0** / 1]
	These SPs count the number of pages sent by the physical port used to send them. For example, if a 3-page original is sent to 4 destinations via ISDN G4, the count for ISDN (G3, G4) is 12.		
001	PSTN-1	-	
002	PSTN-2	-	
003	PSTN-3	-	
004	ISDN (G3,G4)	-	
005	Network	-	

8 711	T:Scan PGS/Comp	CTL	[0 to 99999999 / **0** / 1]
8 715	S:Scan PGS/Comp	CTL	[0 to 99999999 / **0** / 1]
	These SPs count the number of pages sent by each compression mode.		
-001	JPEG/JPEG2000	-	
-002	TIFF M/S (Multi/Single)	-	
-003	PDF	-	
-004	Other	-	

8741	RX PGS/Port		[0 to 9999999/ 0 / 1]
	These SPs count the number of pages received by the physical port used to receive them.		
001	PSTN-1		
002	PSTN-2		
003	PSTN-3		
004	ISDN (G3,G4)		
005	Network		

8 771	Dev Counter	CTL	[0 to 99999999/ **0** / 1]
	This SP counts the total number of developed images.		
001	Total		

8 781	Toner Botol Info.	*BICU	[0 to 99999999/ **0** / 1]
	This SP counts the total number of developed images.		
001	Total		

8 801	Toner Remain	CTL	[0 to 100 / 0 / 1]
	This SP displays the percent of toner remaining for each color. This SP allows the user to check the toner supply at any time. Note ▪ This precise method of measuring remaining toner supply (1% steps) is better than other machines on the market that can only measure in increments of 10 (10% steps).		
001	K		

8 851	Cvr Cnt:0-10%	*BICU	[0 to 99999999/ **0** / 1]
	These SPs display the number of scanned sheets on which the coverage of each color is from 0% to 10%.		
011	0-2%:Bk		
021	3-4%: Bk		
031	5-7%: Bk		
041	8-10%: Bk		

8 861	Cvr Cnt: 11-20%	*BICU	[0 to 99999999/ **0** / 1]
	These SPs display the number of scanned sheets on which the coverage of each color is from 11% to 20%.		
001	Bk		

8 871	Cvr Cnt: 21-30%	*BICU	[0 to 99999999/ **0** / 1]
	These SPs display the number of scanned sheets on which the coverage of each color is from 21% to 30%.		
001	Bk		

8 881	Cvr Cnt: 31%-	*BICU	[0 to 99999999/ **0** / 1]
	These SPs display the number of scanned sheets on which the coverage of each color is 31% or higher.		
001	Bk		

8 891	Page/Toner Bottle	*BICU	[0 to 99999999/ **0** / 1]
	This SP displays the number of sheets output by the scan application.		
001	Bk		

8 901	Page/Toner k Prev1	*BICU	[0 to 99999999/ **0** / 1]
	This SP displays the number of sheets output by the scan application with the previously replaced units.		
001	Bk		

8 911	Page/Toner k Prev2	*BICU	[0 to 99999999/ **0** / 1]
	This SP displays the number of sheets output by the scan application with the unit replaced before the previously replaced unit (two steps back from the current unit).		
001	Bk		

8 921	Cvr Cnt/Total	*BICU	
001	Coverage(%): BK	[0 to 2147483647 / **0** / 1] These SPs display the total coverage percentage of sheets output by the machine.	
011	Covwerage/P: Bk	[0 to 99999999 / **0** / 1] These SPs display the total coverage pages output by the machine.	

8 941	Machine Status	CTL	[0 to 99999999 / **0** / 1]
	These SPs count the amount of time the machine spends in each operation mode. These SPs are useful for customers who need to investigate machine operation for improvement of their compliance with ISO Standards.		
001	Operation Time	Engine operation time. Does not include time while controller is saving data to HDD (while engine is not operating).	
002	Standby Time	Engine not operating. Includes time while controller saves data to HDD. Does not include time spent in Energy Save, Low Power, or Off modes.	
003	Energy Save Time	Includes time while the machine is performing background printing.	
004	Low Power Time	Includes time in Energy Save mode with Engine on. Includes time while machine is performing background printing.	
005	Off Mode Time	Includes time while machine is performing background printing. Does not include time machine remains powered off with the power switches.	

006	SC	Total down time due to SC errors.
007	PrtJam	Total down time due to paper jams during printing.
008	OrgJam	Total down time due to original jams during scanning.
009	Supply PM Unit End	Total down time due to toner end.

8 999	AdominCounter	CTL	[0 to 9999999 / **0** / 1]
	Displays the user setting counter for administrator.		
001	Total	-	
003	Copy: BW	-	
007	Printer: BW	-	
010	FaxP: BW	-	
013	Duplex	-	
015	Cvr: BW %	-	
017	Cvr: BW Pages	-	
101	SedTtl: FC		
102	SendTtl: BW	-	
103	FaxSend	-	
104	FaxSend: BW		
105	FaxSend: BW	-	

5.1.2 INPUT CHECK (SP5-803)

Conducting Input Check

1. Select SP5-803.
2. Select the number (see the table below) corresponding to the component.
3. Select “Execute.” The copy mode is activated.
4. The sign “01H” or “00H” is displayed (see the table below).

Input Check Table

Num.	Sensor/Switch	1h	0h
001	Safety SW	Open	Closed
003	Right Cover SW	Open	Closed
006	Upper Relay S	Paper detected	Not detected
007	Lower Relay S	Paper detected	Not detected
009	Regist Sensor	Paper detected	Not detected
010	Exit Sensor	Paper detected	Not detected
011	Duplex Inverter S	Paper detected	Not detected
014	By-pass PE S	Paper detected	Not detected
016	Upper PE S	Paper detected	Not detected
017	BK-Upper PE S	Paper detected	Not detected
020	BK-Lower PE S	Paper detected	Not detected
027	PCU Set Signal	Installed	Not installed
028	BK type	*	*
030	Duplex Installed	Installed	Not installed

Num.	Sensor/Switch	1h	0h
032	Main M Lock	Locked	Not locked
033	Polygon M Lock	Locked	Not locked
035	Total CO Install	Installed	Not installed
036	Key CO Install	Installed	Not installed
037	L-Synchronization	Detected	Not detected
039	DF-Cover Open S	Open	Closed
040	DF-Original Set S	Paper detected	Not detected
041	DF-Registration S	Paper detected	Not detected
042	DF-Exit S	Paper detected	Not detected
044	DF-Reverse S	Paper detected	Not detected
045	Platen Cover S	Open	Closed
050	Fan Motor Lock (High speed)	High speed	Low speed or stop
052	Front Cover SW	Open	Closed
053	HP Sensor	Detected	Not detected
055	BK-UpperCover SW	Open	Closed
056	BK-LowerCover SW	Open	Closed

* Available Paper Feed Unit

00	None
30	1-tray paper feed unit

5.1.3 OUTPUT CHECK (SP5-804)

Conducting Output Check

⚠CAUTION

- To prevent mechanical or electrical damage, do not keep an electrical component on for a long time.

1. Select SP5-804.
2. Select the number (see the table below) corresponding to the component.
3. Select "ON."
4. To stop the operation, select "OFF."

Output Check Table

Num.	Component
001	Main M- Fwd
002	Main M- Rev
003	Quenching Lamp
004	Toner Sup CL
005	Fan M- High
006	Fan M- Low
007	Registration CL
008	By-pass Feed CL
009	Upper Feed CL
010	BK-Upper Feed CL
015	BK-Lower Feed CL
020	Duplex Inv M- Rev

Num.	Component
021	Duplex Inv M- Fwd
024	Duplex Inv M- Hold
026	Polygon M
027	Polygon M/LD
028	LD
029	DF-Feed M
030	DF-Transport M
031	DF-Feed CL
034	DF-Gate SOL (Junction Gate Solenoid)
038	Fusing SOL

When checking Fan Motor High (005) or Fan Motor Low (006) note the following:

- These motors may not respond when the fusing temperature is high.
- Selecting “ON” checks that one of these motors normally operates. Selecting “OFF” turns off the motor that you have started by selecting “ON.” However, this does not guarantee that the motor normally stops during normal operation.

5.1.4 PRINTER SERVICE MODE

Service Mode Table

1001	**Bit Switch**			
001	Bit Switch 1		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	**No I/O Timeout**	0: Disable	1: Enable
		Enables/Disables MFP I/O Timeouts. Enabled: The MFP I/O Timeout setting will have no affect. I/O Timeouts will never occur.		
	bit 4	**SD Card Save Mode**	0: Disable	1: Enable
		Enabled: Print jobs will be saved to an SD Card in the GW SD slot (☛ “Card Save Function” in the service tables of Field Service Manual).		
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	**[RPCS,PCL]: Printable area frame border**	0: Disable	1: Enable
		Enable: The machine prints all RPCS and PCL jobs with a border on the edges of the printable area.		

1001	**Bit Switch**			
002	Bit Switch 2		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	Applying a collate Type	Shift Collate	Normal Collate
		A collation type (shift or normal) will be applied to all jobs that do not already have a 'Collate Type' configured. Note ▪ If #5-0 is enabled, this Bit Switch has no effect.		
	bit 3	**[PCL5e/c,PS]: PDL Auto Switching**	0: Enable	1: Disable
		Disabled: The MFPs ability to change the PDL processor mid-job. Some host systems submit jobs that contain both PS and PCL5e/c. If Auto PDL switching is disabled, these jobs will not be printed properly.		
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	**Bit Switch**			
003	Bit Switch 3		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	**[PCL5e/c]: Legacy HP compatibility**	0: Disable	1: Enable
		Enabled: Uses the same left margin as older HP models such as HP4000/HP8000. In other words, the left margin defined in the job (usually "<ESC>*r0A") will be changed to "<ESC>*r1A"		
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	**Bit Switch**		
004	Bit Switch 4 **DFU**	-	-

1001	**Bit Switch**			
005	Bit Switch 5		0	1
	bit 0	DFU	-	-
	bit 1	Multiple copies if a paper size or type mismatch occurs	Disabled (single copy)	Enabled (multiple)
		If a paper size or type mismatch occurs during the printing of multiple copies, only a single copy is output by default. Using this BitSw, the device can be configured to print all copies even if a paper mismatch occurs.		
	bit 2	DFU	-	-
	bit 3	**[PS] PS Criteria**	Pattern3	Pattern1
		Change the number of PS criterion used by the PS interpreter to determine whether a job is PS data or not. Pattern3: includes most PS commands. Pattern1: A small number of PS tags and headers		
	bit 4	**Increase max number of the stored jobs to 1000 jobs.**	Disable (100)	Enable (1000)
		Enabled: Changes the maximum number of jobs that can be stored on the HDD via Job Type settings to 1000. The default is 100.		
	bit 5	DFU	-	-
	bit 6	**Method for determining the image rotation for the edge to bring on**	Disable	Enable
		Enabled: The image rotation will be performed as they were in the specifications of older models for the binding of pages of mixed orientation jobs. The old models are below: -PCL-: Pre-04A models		

	bit 7	**Letterhead mode printing**	Disable	Enable (Duplex)
		Routes all pages through the duplex unit. If this is disabled, simplex pages or the last page of an odd-paged duplex job, are not routed through the duplex unit. This could result in problems with letterhead / pre-printed pages.		

⇒

1001	**Bit Switch**			
006	Bit Switch 6		**0**	1
	bit 0	**Make By-Pass printer priority tray**	**Disable** **(Default)**	Enable
		If enabled, the Bypass tray will be included in auto tray selection and be the printer priority tray..		
	bit 1~7	DFU	-	-

1001	**Bit Switch**		
007	Bit Switch 7 **DFU**	-	-

1001	**Bit Switch**			
008	Bit Switch 8		0	1
	bit 0~7	DFU	-	-

1003	Clear Setting	Not used
1004	Print Summary	Prints the service summary sheet (An error log is printed in addition to the configuration page).
1005	Display Version	Displays the version of the controller firmware.
1006	Sample/Locked print	0: Link with Doc., 1: On Enables and disables the document server. When you select “0” the document server is enabled or disables in accordance with copy service mode SP5-967. When you select “1” the document server is enabled regardless of service mode SP5-967.

SP Modes Related to Printer Controller

The following SP modes are located in the copier SP mode. Refer to section 5.1 of the main unit service manual.

SP No.	Description	Function and Setting
5801	Memory All Clear	Resets data for process control and all software counters, and returns all modes and adjustments to their defaults values. ☛ Section "Memory Clear" in this chapter for details.
5907	Plug & Play	Selects the brand name and the production name for Windows Plug & Play. This information is stored in NVRAM.
7832	Detailed Display of Self-Diagnostics	Displays the controller self-diagnostic result.

5.1.5 SCANNER PROGRAM MODE TABLE

Service Table Key

Notation	What it means
[range / **default** / step]	Example: [-9 to +9 / **+3.0** / 0.1 mm step]. The setting can be adjusted in the range ±9, value reset to +3.0 after an NVRAM reset, and the value can be changed in 0.1 mm steps with each key press.
italics	Comments added for your reference.
*	This value is stored in NVRAM. After a RAM reset, the default value (factory setting) is restored.
DFU	Denotes “Design or Factory Use”. Do not change this value.

SP1	Mode Number		Function and [Setting]
1001*	5	Scan NV Version	Displays the scanner NV version. This shows as following: Function name _ Model name _ Version
1004*	1	Compression Type	Selects the compression type for binary picture processing. [**1: MH**, 2: MR, 3: MMR]
1005*	1	Erase Margin	Creates an erase margin for all edges of the scanned image. If the machine has scanned the edge of the original, create a margin. [0 to 5 / **0mm** / 1mm step]
1009*	1	Remote Scan disable	Enables or disables the network TWAIN scanner function. **0**: enable, 1: disable

1012	1	User Info Release	Clears or does not clear a user information after a job. [0 or 1 / **1** / -] 0: Not clear, 1: Clear
1013	1	Multi Media Func	Display or not display a “Scan To Multi Media” function. [0 or 1 / **1** / -] 0: OFF, 1: ON

SP	Number/Name	Function and [Setting]
2021	Compression level (grayscale or full color)	
	These SP codes set the compression ratio for the grayscale or full color processing mode that can be selected with the notch settings on the operation panel. Range: 5 (lowest ratio) ←→ 95 (highest ratio)	
1	Comp1: 5-95 (Middle I-Qual)	[5 to 95 / **20** /1/step]
2	Comp2: 5-95 (High I-Qual)	[5 to 95 / **40** /1/step]
3	Comp3: 5-95 (Low I-Qual)	[5 to 95 / **65** /1/step]
4	Comp4: 5-95 (Highest I-Qual)	[5 to 95 / **80** /1/step]
5	Comp5: 5-95 (Lowest I-Qual)	[5 to 95 / **95** /1/step]

For the settings of the image quality, see the copier SP-mode table.

5.2 SYSTEM SERVICE MODE (BASIC: D067/D072)

5.2.1 SERVICE MODE TABLES

SP1-XXX (Feed)

1001*	LE Registration	[–9.0 to 9.0 / **0.0** / 0.1 mm/step]
1001 1	All Trays	Adjusts the leading-edge registration (☛"Adjusting Copy Image Area" in the section "Replacement and Adjustment").
1001 2	By-pass	
1001 3	Duplex	

1002*	S-to-S Regist	[–9.0 to 9.0 / **0.0** / 0.1 mm/step]
1002 1	1st Tray	Adjusts the side-to-side registration (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment"). SP1-002-001 is applied to all trays. SP1-002-002, 003 and 005 adjusts the difference from SP1-002-001.
1002 2	2nd Tray	
1002 3	3rd Tray	
1002 5	By-pass	
1002 6	Duplex	Adjusts the side-to-side registration of the 2nd side in duplex copying. The 1st side is adjusted by SP1-002-001 through 005.

1003*	Paper Feed Timing	Adjusts the amount of paper buckle on the registration roller.
1003 1	1st tray	[0 to 10 / **5** / 1 mm/step]
1003 3	Bank Trays	[0 to 10 / **5** / 1 mm/step]
1003 4	By-pass	[0 to 10 / **5** / 1 mm/step]
1003 5	Duplex	[0 to 20 / **5** / 1 mm/step]

1103*	Fusing Idling	[**0** = No / 1 = Yes]	
1103 1	Enables or disables the contact-release control. The following table lists the results.		
	Setting	**0 = No**	**1 = Yes**
	C-R control	Works	Does not work
	Idling time	Shorter	Longer
	Fusing quality	Lower	Higher

1105*	Fusing Temp Adj	
	Adjusts the target fusing temperature. Note that the thermistor is at the center of the hot roller.	
1105 1	Warm Up-Center	[140 to 180 / **160** / 1°C/step]
1105 3	Standby-Center	[140 to 160 / **150** / 1°C/step]
1105 5	Copying-Center	[140 to 180 / **160** / 1°C/step]
1105 7	Low Level 2-Center	[0 to 80 / **60** / 1°C/step]
1105 9	Thick-Center	[140 to 185 / **165** / 1°C/step]

1106	Display Fusing
1106 1	(Center and Leading edge) Displays the fusing temperature.

1107*	Fusing Soft Start **DFU**	
	Adjusts the number of zero-cross cycles of the fusing lamp AC supply needed to bring the fusing lamp power to 100% while bringing the lamp up to the standby temperature or while copying. Increase this value if the machine is experiencing sudden power dropouts.	
1107 1	Warm Up Soft Start	[0 = 10 times / 1 = 20 times / **2** = 50 times]
1107 2	Other Soft Start	[0 = 10 times / 1 = 20 times / **2** = 50 times / 3 = 1 time]
1107 3	Soft Stop Setting	[0: No / **1**: Yes]

1108*	Set-Fusing Start	[**0** = 1s / 1 = 1.5s / 2 = 2s]
1108 1	Specifies the interval for fusing-temperature control.	

1109	Nip Band Check
1109 1	Conducts the nip band check (☛ "Adjusting Nip Band" in the section "Replacement and Adjustment").

1110*	Fan Control Timer	[30 to 60 / **30** / 1 s/step]
1110 1	Specifies the fan control time. The fan motor keeps its operating speed for the specified time before changing the speed or stopping. The fan control timer prevents the exhaust fan from suddenly stopping. This function protects the copier from overheating.	

1159*	Fusing Jam SC	[**0 =** No / 1 = Yes]
1159 1	Enables or disables consecutive jam detection at the fusing unit. If this SP is set to "1" (default: 0), consecutive fusing jam alarm occurs (SC559) when the machine detects three consecutive paper jams at the fusing unit.	

1902	Display-AC Freq.
1902 1	Displays the fusing lamp power control frequency (as detected by the zero cross signal generator). The displayed value is 1/5 the actual frequency: 10 and lower = 50 Hz, 11 and higher = 60 Hz.

1911*	By-pass Envelope	[**0** = No / 1= Yes]
1911 1	The program dedicated to envelope printing runs when you enable this program (SP1-911-001) and you select “Thick Paper” as the paper type of the by-pass tray (◈/123 > System Settings > Tray Paper Settings > Paper Type: Bypass Tray).	

SP2-XXX (Drum)

2001*	CR Bias Adj	
2001 1	Printing	[–2100 to –1500 / **–1650** / 1 V/step]
	Adjusts the voltage applied to the charge roller for printing. The voltage changes automatically as charge-roller voltage control works. The value here is the base value for the charge-roller voltage control.	
2001 2	ID sensor pattern	[0 to 400 / **300** / 1 V/step]
	Adjusts the voltage applied to the charge roller for the ID sensor pattern (as part of charge-roller voltage correction). The charge-roller voltage is obtained by adding SP2-001-002 to the value of SP2-001-001.	

2101*	Erase Margin Adj	Adjusts the width of the erased area (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment").
2101 1	Leading Edge	[0.0 to 9.0 / **3.0** / 0.1 mm/step] Specification: 2 ± 1.5 mm
2101 2	Trailing Edge	[0.0 to 9.0 / 4**.0** / 0.1 mm/step] Specification: 2 +2.5/–1.5 mm
	The rear trailing edge is this value plus 1.2 mm.	
2101 3	Left side	[0.0 to 9.0 / **2.0** / 0.1 mm/step] Specification: 2 ± 1.5 mm
	The rear left edge is this value plus 0.3 mm.	
2101 4	Right side	[0.0 to 9.0 / **2.0** / 0.1 mm/step] Specification: 2 +2.5/–1.5 mm
	The rear right edge is this value plus 0.3 mm.	

2201*	Dv Bias Adj	
2201 1	Printing	[–1500 to –200 / **–650** / 1 V/step]
	Adjusts the voltage applied to the development roller for printing. Image density becomes higher when you specify a smaller value (a greater absolute value). Image density becomes lower when you specify a greater value (a smaller absolute value).	
2201 2	ID sensor pattern	[–2 = LL (220 V) / -1 = L (260 V) / **0** = N (300 V) / 1 = H (340 V) / 2 = HH (380 V)]
	Adjusts the voltage applied to the development roller for the ID sensor pattern. The voltage applied is obtained by adding SP2-201-002 to SP2-201-1. The setting affects ID sensor pattern density, which in turn affects the toner supply.	

2213*	Outputs After NE
2213 1	[**0** = 50 pages / 1 = 20 sheets] Sets the number of copy/print/fax pages that can be made after toner near-end has been detected. Reduce the number of pages if the user normally makes copies with a high image ratio.

2214	Develpr Initialize
2214 1	Initializes the TD sensor toner supply target voltage and the TD sensor gain value. Execute this SP replacing the developer or the TD sensor.

2221	ID Error Analysis (☛ "ID Sensor Error Analysis (SP2-221)")	
2221 1	Vsg	Displays the Vsg value.
2221 2	Vsp	Displays the Vsp value.
2221 3	PWM	Displays the PWM value.
2221 4	Vsdp	Displays the Vsdp value.
2221 5	Vt	Displays the Vt value.
2221 6	Vts	Displays the Vts value.

2301*	Tr Current Adj (☛ "Image Transfer Current").	
2301 1	Normal paper	[–2 = –4 μA / –1 = –2 μA / **0 = 0** μ**A** / 1 = 2 μA / 2 = +4 μA]
	Adjusts the current applied to the transfer roller when feeding from a paper tray. Use a high setting if the user normally feeds relatively thick paper (within spec) from a paper tray	
2301 2	Thick/Special	[–2 = –4 μA / –1 = –2 μA / **0 = 0** μ**A** / 1 = 2 μA / 2 = +4 μA]
	Adjusts the current applied to the transfer roller when feeding from the by-pass tray. Use a high setting (a) if the user normally feeds relatively thick paper from the by-pass tray, or (b) if waste toner is re-attracted from the drum (which can occur when using transparencies).	

2301 3	Duplex	[–2 = –4 µA / –1 = –2 µ/ **0 = 0 µA** / 1 = 2 µA / 2 = +4 µA]
	Adjusts the current applied to the transfer roller when carrying out a duplex job. Use this SP if there is poor image transfer on the rear side of duplex copies.	
2301 4	Cleaning	[–10 to 1 / **–1** / 1 µA/step]
	Adjusts the current applied to the transfer roller for roller cleaning. Increase the current if toner remains on the roller after cleaning. (Remaining toner may cause dirty background on the rear side.)	

2802	Forced Develpr Churn
2802 1	Initializes the developer and checks the TD sensor output (Vt). The machine mixes the developer for 2 minutes while reading and displaying the Vt value. The machine does not initialize the TD sensor output. If the machine has not been used for a long period, prints may have a dirty background. In a case like this, use this SP to mix the developer. The message “Completed” is displayed when the program ends normally.

2906*	Tailing Crctn	
2906 1	Shift value	[0.0 to 1.0 / **0.0** / 0.1 mm/step]
	Shifts the image position at the intervals specified by SP2-906-002. When the copier is continuously printing vertical lines (such as in tables), the paper may not separate correctly. This SP can prevent this.	
2906 2	Interval	[1 to 10 / **1** / 1 page/step]
	Changes the interval of the image position shift specified by SP2-906-001.	

2908	Forced Toner Supp
2908 1	Supplies the toner to the development unit. The processing stops under either of the following conditions: ▪ The toner density in the development unit reaches the standard level. ▪ The processing has continued for two 2 minutes.

2915*	Polygon Idling	[0 = None / **1** = 15 s / 2 = 25 s]
2915 1	Specifies the polygon mirror motor idling time. The polygon mirror motor starts its operation when an original is set, a key is pressed, or the platen cover or DF is opened. The motor stops if no manual operation is performed for the specified time. When you set “0”, the motor does not stop while the copier is in the standby status.	

2921*	Toner Supply Mode
2921 1	[**0** = Sensor 1 / 1 = Sensor 2 (**DFU**)] Selects the toner supply mode. Keep the default setting as long as the TD sensor is working.

2922*	Toner Supply Time	[0.1 to 5.0 / **0.6** / 0.1 s/step]
2922 1	Adjusts the toner supply time. The toner supply motor remains on for the specified time. To validate this setting, select “0” in SP2-921-001. Specify a greater value if the user tends to make many copies having high proportions of solid black image areas.	

2926*	Standard Vt	[0.00 to 5.00 / **2.50** / 0.01 V/step] **DFU**
2926 1	Adjusts Vts (the Vt value for new developer). The TD sensor output is adjusted to this value during the TD sensor initial setting process. This SP is effective only when SP2-921001 is “0”, “1”, or “2”.	

2927*	ID Sensor Control	[0 = No / **1** = Yes]
2927 1	Determines whether the ID sensor signal is referenced or not for the toner density control. Keep the default value in usual operations.	

2928	Toner End Clear
2928 1	Clears the following messages and counters without supplying the toner: ▪ Toner near end message ▪ Toner end message ▪ Toner near end counter ▪ Toner end counter Do not use this SP in usual operations. When the toner in the development unit is abnormally insufficient, the drum may attract the toner carrier to its surface. The toner carrier damages the drum surface..

2929*	Vref Limits	Adjust the upper or lower Vref limit.
2929 1	Upper	[0.50 to 3.50 / **3.20** / 0.01V/step] **DFU**
2929 2	Lower	[0.50 to 3.50 / **0.70** / 0.01V/step] **DFU**

2994*	ID Detect Temp	[30 to 90 / **30** / 1 °C/step]
2994 1	Adjusts the temperature threshold. The ID sensor signal is not referenced when the fusing temperature is at the specified level or higher while the copier is recovering or starting up.	

2996*	T Roller Cleaning	[**0** = No / 1 = Yes]
2996 1	Cleans or does not clean the transfer roller before each job. Select “1” if the backside of the paper becomes unclean when output. Note that the copier takes a longer time to output the first copy when you select “1”. If you select “0”, the transfer roller is never cleaned.	

2998*	Main Mag- print	[–0.5 to +0.5 / **0.0** / 0.1%/step]
2998 1	Adjusts the magnification (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment"). The specification is 100 ± 1.0%.	

SP4-XXX (Scanner)

4008*	Sub-Scan Magnification (Scanner)	[-0.9 to +0.9 / **0.0** / 0.1%/step]
4008 1	Adjusts the sub-scan magnification (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment").	

4009*	Main Scan Magnification (Scanner)	[–0.9 to +0.9 / **0.0** / 0.1%/step]
4009 1	Adjusts the main-scan magnification (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment").	

4010*	Leading Edge Scan Registration	[–5.0 to +5.0 / **0.0** / 0.1 mm/step]
4010 1	Adjusts the leading edge registration (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment").	

4011*	Side-to-side Scan Regist	[–2.0 to +2.0 / **0.0** / 0.1 mm/step]
4011 1	Adjusts the side-to-side registration for scanning in platen mode (☛ "Adjusting Copy Image Area" in the section "Replacement and Adjustment").	

4012*	Scan Erase Margin	[0 to 9.0 / **1.0** / 0.1 mm/step]
4012 1	Leading edge	Adjusts the scanning margin. Generally, the scanning margin should be as little as possible. To adjust the image area, use SP2-101.
4012 2	Trailing edge	
4012 3	Left Side	
4012 4	Right Side	

4013	Scanner Free Run
4013 1	Conducts the scanner free run with the exposure lamp on.

4015*	White Plate Scan	
4015 1	Start position	[–3.0 to +6.0 / **0.0** / 0.1 mm/step]
	Adjusts the scanning start position on the white plate. The base value is 17.8 mm from the scanner home position. This SP specifies the offset from this base value.	
4015 2	Scanning Length	[–3.0 to +6.0 / **0.0** / 0.1 mm/step]
	Adjusts the distance of the white plate scan. The scan begins from the start position (SP4-015-001) and ends at the specified distance. The base value is 2.0 mm. This SP decides the offset from this base value. Specify 0 (zero) or a larger value.	

4428	Scan Auto Adjustment
4428 1	Conducts the automatic scanner adjustment. Use this SP after replacing the white plate (☛ "Scanning" in the section "Replacement and Adjustment").

4450	Image Path	
001	BK Offset Enable	[0 or 1 / **1** / -] 0: OFF, 1: ON
	Uses or does not use the black reduction image path.	
002	SH Path Enable	[0 or 1 / **0** / 1 /step] 0: No, 1: Yes
	Uses or does not use the shading image path.	

4606	SBU Offset-Target	
4607 1	EVEN	[0 to 63 / **10** / 1 /step] Adjusts the target black level for each signal. These are used for offset adjustment in the SBU.
4607 2	ODD	
4607 3	RED	
4607 4	GREEN	
4607 5	BLUE	

4607	SBU Gain-Target	
4607 1	EVEN	[0 to 255 / **180** / 1 /step] Adjusts the target white level for each signal. These are used for gain adjustment in the SBU.
4607 2	ODD	
4607 3	RED	
4607 4	GREEN	
4607 5	BLUE	

4623	SBU Offset-Result	
4623 1	EVEN	[0 to 255 / **0** / 1 /step] Displays the result value of the offset adjustment in the SBU.
4623 2	ODD	
4623 3	RED	
4623 4	GREEN	
4623 5	BLUE	

4628	SBU Gain-Result	
4628 1	EVEN	[0 to 255 / **0** / 1 /step] Displays the result value of the gain adjustment in the SBU.
4628 2	ODD	
4628 3	RED	
4628 4	GREEN	
4628 5	BLUE	

4640	SBU Offset-Loop	
4640 1	EVEN	[0 to 10 / **0** / 1 /step] Displays the number of the offset adjustment in the SBU.
4640 2	ODD	
4640 3	RED	
4640 4	GREEN	
4640 5	BLUE	

4641	SBU Gain-Loop	
4641 1	EVEN	[0 to 10 / **0** / 1 /step] Displays the number of the gain adjustment in the SBU.
4641 2	ODD	
4641 3	RED	
4641 4	GREEN	
4641 5	BLUE	

4642	SBU Offsetpre-Loop	
4642 1	EVEN	[0 to 3 / **0** / 1 /step] Displays the number of the pre-offset adjustment in the SBU.
4642 2	ODD	
4642 3	RED	
4642 4	GREEN	
4642 5	BLUE	

4646	SBU Adj Error	
4646 1	Offsetpre-Mono	[**0** = Success / 1 = Failure] Displays the result of SBU adjustment.
4646 2	Offsetpre-Color	
4646 3	Offset-Mono	
4646 4	Offset-Color	
4646 5	Gain-Mono	
4646 6	Gain-Color	

4654*	SBU Offset-Adjust	
4654 1	EVEN	[0 to 255 / **-** / 1 /step] Displays the offset value of the offset adjustment in the SBU.
4654 2	ODD	
4654 3	RED	
4654 4	GREEN	
4654 5	BLUE	

4658*	SBU Gain-Adjust	
4658 1	EVEN	[0 to 511 / **-** / 1 /step] Displays the gain value of the gain adjustment in the SBU.
4658 2	ODD	
4658 3	RED	
4658 4	GREEN	
4658 5	BLUE	

4685*	Gray Balance-Book	
4685 1	RED	[128 to 383 / **256** / 1 /step] Adjusts the coefficient of the gray balance adjustment for the book scanning.
4685 2	GREEN	
4685 3	BLUE	

4686*	Gray Balance-DF	
4686 1	RED	[128 to 383 / **256** / 1 /step] Adjusts the coefficient of the gray balance adjustment for the DF scanning.
4686 2	GREEN	
4686 3	BLUE	

4687*	White Balance	
4687 1	Adjust	[222 to 281 / **256** / 1 /step] Adjust the correction value for the white plate adjustment.
4687 2	Result	Displays the current value of the white plate adjustment. If SP4-428 has not been done, this value is "0".

4690	White Peek Init	
4658 1	EVEN	[0 to 255 / **-** / 1 /step] Displays the white offset value of the pre-offset adjustment in the SBU.
4658 2	ODD	
4658 3	RED	
4658 4	GREEN	
4658 5	BLUE	

4693	Black Peek Init	
4658 1	EVEN	[0 to 255 / **-** / 1 /step] Displays the black offset value of the pre-offset adjustment in the SBU.
4658 2	ODD	
4658 3	RED	
4658 4	GREEN	
4658 5	BLUE	

4902*	Exposure Lamp ON	[**0**: OFF / 1: ON]
4902 1	Turns the exposure lamp on or off. To turn on the exposure lamp, specify “1”; to turn it off specify “0”.	

4903*	ADS Level	[0 to 255 / **252** / 1/step]
4903 1	Adjusts the ADS level.	

4904*	ADS Lower Limit	[0 to 255 / **80** / 1/step]
4904 1	Adjusts the ADS lower limit.	

4905*	ADS Area Select	[**0** = All / 1 = One]
4905 1	Checks the whole area (0 = All) or the specific areas (1 = One) to adjust the ADS level. The specific areas are as follows: ▪ ARDF: ±37.5 mm from the center ▪ Platen Cover: 15 to 90 mm from the left edge	

4921*	Image Adj Selection	
4921 1	Copy	[0 to 10 / **0** / 1/step]
	Selects which mode the settings from SP4-922 to SP4-932 are used for. 0 = None, 1 = Text 1, 2 =Text 2, 3= Photo 1, 4 = Photo 2, 5 = Photo 3, 6 = Special 1, 7 = Special 2, 8 = Special 3, 9 = Special 4, 10 = Special 5	

4922*	Scanner Gamma	[**0**=System default/1=Text/2=Photo]
4922 1	Copy	Selects "text" or "photo" as the priority output mode. This setting is applied to all image processing modes of SP4-921.

4923*	Notch Selection	
	Selects the value of the center ID adjustment notch for the ID adjustment LEDs. ▪ Normally the center notch is 3 (range 1-5). If -1 is selected, each notch shifts down (becomes lighter). If +1 is selected, each notch shifts up (becomes darker). ▪ This setting is applied to all image processing modes of SP4-921.	
4923 1	Copy	[–1 = Light / **0** = Normal / +1 = Dark]

4926*	Texture Removal	
	Adjusts the texture removal level that is used with error diffusion. 0: The default value for each mode is used. Text 1, Photo 2, Special 2, and Special 5 have a default of 3 and Photo 1, 3 have a default of 6. 1: No removal applied. 2 – 6: Removal applied at the level specified here. The higher the setting (level), the less clear the image will become (more texture removal). This setting is only applied to the originals in SP4-921.	
4926 1	Copy	[0 to 6 / **0** / 1/step]

4927*	Line Width Correction	
	Adjusts the line width correction algorithm. Positive settings produce thicker lines; negative settings produce thinner lines. This setting is only applied to the originals in SP4-921.	
4927 1	Copy	[–2 to 2 / **0** / 1/step]

4928*	Independent Dot Erase	
	Selects the dot erase level. Higher settings provide greater erasure. This setting is only applied to the originals in SP4-921.	
4928 1	Copy	[–2 to 2 / **0** / 1/step]

4929*	Positive/Negative	[**0** = No, 1 = Yes]
4929 1	Copy	Inverts white and black. This setting is only applied to the originals in SP4-921.

4930*	Sharpness-Edge	[–2 to 2 / **0** / 1/step]
4930 1	Copy	Adjust the clarity. This setting is only applied to the originals in SP4-921.

4931*	Sharpness-Solid	[–2 to 2 / **0** / 1/step]
4931 1	Copy	Adjust the clarity. This setting is only applied to the originals in SP4-921.

4932*	Sharpness-Low ID	[–2 to 2 / **0** / 1/step]
4932 1	Copy	Adjust the clarity. This setting is only applied to the originals in SP4-921.

4941*	White Line Erase	[0 to 2 / **1** / 1/step]
4941 1	Selects the white line erase level. 0: None, 1: Weak, 2: Strong ▪ This setting is effective for all modes. ▪ 0: White line erase is not used, and white level correction is used instead· ▪ This setting is applied regardless of what mode has been selected in SP4-921.	

4942*	Black Line Erase	[0 to 3 / **2** / 1/step]
4942 1	Selects the black line erase level. This setting is effective only when originals are scanned by the DF. [0 = No / 1 = Very weak / 2 = Weak / 3 = Strong] This setting is applied regardless of what mode has been selected in SP4-921.	

SP5-XXX (Mode)

5001	All Indicators On
5001 1	Turns on all LEDs. The LCD turns on or off every 3 seconds. Press the reset key to end this program.

5045*	Display-Counter	[0 or 1 / 0 / -] 0: 1 counter, 1: 2 couters
5045 1	Displays the number of the installed couter.	

5113*	Optional Counter Type	**0:** None 1: Key Card20+ 2: Key Card20– 11: Key Card4+ 12: Key Card4–
5113 1	Selects the corresponding key for installed devices such as coin lock.	

5120*	Clear-OP Count Remove	[**0**=Yes / 1=Standby only / 2=No]
5120 1	Specifies the condition to reset the copy job settings when the key counter is removed. ▪ 0: Y = Yes: The settings are cleared when the counter is removed. ▪ 1: StdBy = Standby only: The settings are cleared when the counter is removed at the end of a job. ▪ 2: N = No: The settings are not cleared under either condition. As for duplex copying, the job settings are always preserved regardless of these setting.	

5121*	Count Up Timing	[**0** = Feed In / 1 = Exit]
5121 1	Selects the count-up timing. ▪ 0 = Feed: At each paper feed ▪ 1= Exit: At each paper exit	

5501*	PM Alarm Interval	[0 to 9999 / **0** / 1K copies/step]
5501 1	Printout	Specifies when the PM alarm occurs.

⇒

5801	Memory Clear (basic model only) (Refer to IMPORTANT NOTE in Sect 6.3)
5801 2	Engine (☛ "Memory Clear" in this section)

5802	Machine Free Run
5802 1	Conducts machine free run (including the scanner unit). Press “ON” to start; press “OFF” to stop.

5803	Input Check
	☛ "Input Check" in this section.

5804	Output Check
	☛ "Output Check" in this section.

5807*	Area Selection
5807 1	Selects the display language. 2 North America, 3 Europe, 5 Asia, 6 China SP5-807-001 is not cleared by SP5-801-002. **NOTE:** SC982 is displayed if you specify a language that is inconsistent with your local model.

5811*	Serial Num Input
5811 1	☛ "Serial Number Input" in this section.

5812*	Service TEL
5812 1	Telephone
	Specifies the telephone number of the service representative. (The number is displayed when a service call condition occurs.) To input a dash, press C. To delete the current telephone number, press C/⊛.
5812 2	Facsimile
	Specifies the fax number printed on user counter reports. To input a dash, press C. To delete the current fax number, press C/⊛.

5824	NVRAM Upload
5824 1	☛ "NVRAM Upload/Download" in this section.

5825	NVRAM Download
5825 1	☛ "NVRAM Upload/Download" in this section.

5827	Program Download (☛ "Firmware Update Procedure" in this section)
5827 1	Copy the software program from the IC card to the flash ROM. To execute this SP, (1) turn off the main power switch, (2) insert the IC card, (3) press the power key and hold it down, and (4) turn on the main power switch (while you keep holding the power key). The copier reads the software program from the IC card if you turn on the copier like this. The SP mode is automatically activated.

5901	Printer Free Run
5901 1	Executes the free run. Press “ON” to start; press “OFF” to stop.

5902	Test Pattern Print
5902 1	☛ "Test Pattern Print" in this section.

5907*	Plug & Play Setting
5907 1	Selects the brand name and production name for the Plug and Play function. These names are stored in the NVRAM. When the NVRAM data is corrupted, select these names once again. Use the right-arrow or left-arrow key to scroll through the list of brand names. To select a brand name, press the OK key. An asterisk (*) indicates which manufacture is currently selected.

5912*	PCU Alarm Counter (Printout)	[0 to 255 / 45 / 1/step]
5912 1	Specifies the PCU alarm level. The PCU alarm is issued when the following condition is met: PAc x 1000 >= PCUc where PAc is the value specified in this SP and PCUc is the PCU counter. When you specify 0 (zero), the PCU alarm is deactivated.	

5990	SMC Print	
5990 1	All	☛ "SMC Print" in this section.
5990 2	SP	
5990 3	User Program	
5990 4	Logging Data	
5990 5	Big font	

SP6-XXX (Peripherals)

6006*	ADF Adjustment (☛ "DF Image Adjustment" in the "Adjusting Copy Image Area") **NOTE:** Available menus depend on the machine model and its configuration.	
6006 1	StoS/Front Regist	[–5.0 to +5.0 / **0.0** / 0.1 mm/step]
	Adjusts the side-to-side registration for the front side of the original, for ARDF mode. Use the ◈ key to select "+" or "–" before entering the value	
6006 2	Leading Regist	[–5.0 to +5.0 / **0.0** / 0.1 mm/step]
	Adjusts the leading edge registration for ARDF mode. Use the ◈ key to select "+" or "–" before entering the value.	
6006 3	Trailing Erase	[–3.0 to +3.0 / **–1.5** / 0.1 mm/step]
	Adjusts the trailing edge erase margin for ARDF mode. Use the ◈ key to select "+" or "–" before entering the value.	
6006 4	S to S/ Rear Regist	[–5.0 to +5.0 / **0.0** / 0.1 mm/step]
	Adjusts the side-to-side registration for the 2nd side of the original, for ARDF mode. Use the ◈ key to select "+" or "–" before entering the value	
6006 5	Sub-scan Magnif	[–0.9 to +0.9 / **0.0** / 0.1 %/step]
	Adjusts the sub-scan magnification for the ARDF.	
6006 6	Origin Curl Adj	[0 = No / **1** = Yes]
	Turns on or off the skew correction at 2nd side scanning. This SP is activated only when the duplex mode is selected.	
6006 7	Skew Correction	[–20 to +20 / **0.0** / 1 mm/step]
	Adjusts the original buckle for the skew correction at 2ns side scanning. This SP is activated only when SP6-006-006 is set to "1 (Yes)".	

6009	ADF Free Run	
6009 1	Duplex Mode	
	Performs an ARDF free run in duplex scanning mode. Press "ON" to start; press "OFF" to stop.	
6009 3	Simplex Mode	
	Performs an ARDF free run at simplex scanning mode. Press "ON" to start; press "OFF" to stop.	

6910*	ADF Shading Time	[0 to 60 / **30** / 1 s/step]
6910 1	Adjusts the interval used for the shading processing in the ARDF mode. Light and heat in the room may affect the scanner response. Reduce this setting if copy quality indicates that the white level is drifting during ARDF copy jobs.	

SP7-XXX (Data Log)

7001*	Total Operation
7001 1	Displays the total operation time (total drum rotation time).

7401*	Counter–SC Total	[0 to 9999 / **0** / 1/step]
7401 1	Displays how many times SC codes are generated.	

7403*	SC History
7403 1	Displays the histories of the latest 10 SC codes.

7502*	Counter–Paper Jam	[0 to 9999 / **0** / 1/step]
7502 1	Displays the total number of copy paper jams.	

7503*	Counter–Orgn Jam	[0 to 9999 / **0** / 1/step]
7503 1	Displays the total number of original jams,	

7504*	Counter-Each P Jam	[0 to 9999 / **0** / 1/step]
	Displays the total number of the paper jams classified by timing and location.	
7504 1	At power on	
	Paper jam occurs at power on.	
7504 10	Off-Regist NoFeed	
	Paper does not reach the registration sensor (from a paper tray).	

7504 11	Off-1 Vertical SN
	Paper does not reach the relay sensor.
7504 12	On-1 Vertical SN
	Paper is caught at the relay sensor.
7504 21	Vertical SN: OFF
	Paper does not reach the vertical transport sensor.
7504 22	Vertical SN: ON
	Paper is caught at the vertical transport sensor.
7504 50	Off-Regist Bypass
	Paper does not reach the registration sensor (from the by-pass tray).
7504 60	Off-Regist Duplex
	Paper does not reach the registration sensor during reverse-side printing (for duplex printing).
7504 70	On-Regist SN
	Paper is caught at the registration sensor.
7504 120	On-Exit SN
	Paper is caught at the exit sensor (previous page).
7504 121	Off-Exit SN
	Paper does not reach the exit sensor.
7504 122	On-Exit SN
	Paper is caught at the exit sensor.

7504 123	Off-Dup Inverter
	Paper does not reach the duplex inverter sensor (from the registration roller).
7504 125	On-Dup Inverter
	Paper is caught at the duplex inverter sensor.

7505*	Counter-Each O Jam	[0 to 9999 / **0** / 1/step]
	Displays the total number of original jams by location. These jams occur when the original does not activate the sensors. **Note** ▪ Lag. Jam occurs when the paper remains at the sensor for longer than the prescribed time. Late: Jam occurs because paper fails to arrive at the prescribed time.	
210	Regist SN: OFF	
211	Regist SN: ON	
212	Paper Exit SN: OFF	
213	Paper Exit SN: ON	
214	Inverter: OFF	
215	Inverter: ON	

7507*	Dsply-P Jam Hist	
001	Lastest	Displays the copy jam history (the most recent 10 jams) Sample Display: CODE:007 SIZE:05h TOTAL:0000334 DATE: Mon Mar 15 11:44:50 2000 where: CODE is the SP7504-*** number (see above. SIZE is the ASAP paper size code in hex. TOTAL is the total jam error count (SP7502) DATE is the date the jams occurred.
002	Latest 1	
003	Latest 2	
004	Latest 3	
005	Latest 4	
006	Latest 5	
007	Latest 6	
008	Latest 7	
009	Latest 8	
010	Latest 9	

Size	Code	Size	Code	Size	Code
A4 (S)	05	A3 (L)	84	DLT (L)	A0
A5 (S)	06	A4 (L)	85	LG (L)	A4
B5 (S)	0E	A5 (L)	86	LT (L)	A6
LT (S)	26	B4 (L)	8D	HLT (L)	AC
HLT (S)	2C	B5 (L)	8E	Others	FF

7508*	Dsply-O Jam History	
001	Last	Displays the original jam history (the most recent 10 jams). Sample Display: CODE:007 SIZE:05h TOTAL:0000334 DATE: Mon Mar 15 11:44:50 2000 where: CODE is the SP7505*** number (see above. SIZE is the ASAP paper size code in hex. TOTAL is the total error count (SP7503) DATE is the date the jams occurred.
002	Last 1	
003	Last 2	
004	Last 3	
005	Last 4	
006	Last 5	
007	Last 6	
008	Last 7	
009	Last 8	
010	Last 9	

7801	Memory/Version/PN
7801 2	Memory/Version (BICU)
	Displays the version of the BICU board
7801 15	Printer/Scanner
	Displays the version of the controller board.

7803*	Display–PM Count
7803 1	Displays the PM counter.

7804	Reset–PM Counter
7804 1	Resets the PM counter (SP7-803-001). When the program ends normally, the message “Completed” is displayed.

7807	Reset–SC/Jam Counters
7807 1	Resets the SC, paper, original, and total jam counters. When the program ends normally, the message “Completed” is displayed. SP7-807-1 does not reset the following logs: SP7-507 (Display-Paper Jam History) and SP7-508 (Display-Original Jam History).

7808	Reset–Counters
7808 1	Resets all counters except for the management counters. The management counters are the counters that are not changed by NVRAM Download (SP5-825-001; ☛ "NVRAM Data Upload/Download"). When the program ends normally, the message “Completed” is displayed.

7810	Reset–Key Op Code
7810 1	Resets the key operator code. Use SP7-810-1 when the customer has forgotten the key-operator code. If the customer has forgotten the key operator code, a new one can be specified by using: User Tools: System Settings → Key Operator Tools → Key Operator Code → On → Enter Key Operator Code. When the program ends normally, the message “Completed” is displayed, if the program ends abnormally, an error message is displayed.

7832*	Display-Self-Diag
7832 1	Displays the SC codes and the number of their occurrences. Each number is in the range of 0 to 9999.

7991*	Dsply–Info Count
	Displays the total operating time or the total number of operations. The time is displayed in the following format: day: hour: minute: second.
7991 1	Dsply-Timer Count
	The total of the time when the main switch is kept on (excluding the time when the safety switch is off).
7991 3	Dsply-ID S Work
	The total of the time when the ID sensor is working.
7991 4	Dsply-Dev Counter
	The total number of paper outputs.
7991 5	Dsply-ID Er Count
	The total number of ID-sensor errors.

7992*	Reset-Info Count
7992 1	Reset-Timer Count
	Clears the timer counter (SP7-991-001).
7992 4	Reset-Dev Count
	Clears the development counter (SP7-991-004).
7992 5	Reset-ID Er Count
	Clears the ID sensor error counter (SP7-991-005).

SP8-XXX (History)

8191*	T: Total Scan PGS	[0 to 9999999 / **0** / 1 sheet/step]
001	Displays the total number of scanned originals. Both sides are counted when the front and reverse sides of an original (fed from the DF) are scanned.	

8192*	C: Total Scan PGS	[0 to 9999999 / **0** / 1 sheet/step]
001	Displays the total number of scanned originals in copy mode. Both sides are counted when the front and reverse sides of an original (fed from the DF) are scanned.	

8195*	S: Total Scan PGS	[0 to 9999999 / **0** / 1 sheet/step]
001	Displays the total number of scanned originals in scanner mode. Both sides are counted when the front and reverse sides of an original (fed from the DF) are scanned.	

8221*	ADF Org Feed	[0 to 9999999 / **0** / 1 sheet/step]
001	Front	
	Displays the total number of scanned front sides of originals fed from the DF.	
002	Back	
	Displays the total number of scanned 2nd sides of originals fed from the DF.	

8381*	T: Total Prt PGS	[0 to 9999999 / **0** / 1 sheet/step]
001	Displays the print count of all application programs.	

8382*	C: Total Prt PGS	[0 to 9999999 / **0** / 1 sheet/step]
001	Displays the print count of the copier application program.	

8384*	P: Total Prt PGS	[0 to 9999999 / **0** / 1 sheet/step]
001	Displays the print count of the printer application program.	

8411*	Prints/Duplex	[0 to 9999999 / **0** / 1 sheet/step]
001	Displays the total count of the duplex printing.	

8422*	C: PrtPGS/Dup Comb	[0 to 9999999 / **0** / 1 sheet/step]
001	Simplex > Duplex	Displays the total print count of copier application classified by combination/duple type.
002	Duplex> Duplex	
004	Simplex Combine	
005	Duplex Combine	
006	2> (2 in 1)	
007	4> (4 in 1)	

8441*	T: PrtPGS/Ppr Size	[0 to 9999999 / **0** / 1 sheet/step]
8442*	C: PrtPGS/Ppr Size	
8444*	S: PrtPGS/Ppr Size	
-002	A4	Displays the number of pages printed by each copier application program.
-003	A5	
-005	B5	
-007	LG	
-008	LT	
-009	HLT	
-254	Other (Standard)	
-255	Other (Custom)	

8451*	C: PrtPGS/Ppr Tray	[0 to 9999999 / **0** / 1 sheet/step]
001	Bypass Tray	Displays the total print count classified by paper source.
002	Tray 1	
003	Tray 2	
004	Tray 3	

8461*	T: PrtPGS/Ppr Type	[0 to 9999999 / **0** / 1 sheet/step]
8462*	C: PrtPGS/Ppr Type	
8464*	S: PrtPGS/Ppr Type	
-001	Normal	Displays the total number of pages printed by each copier application program.
-004	Thick	
-007	OHP	
-008	Other	

8522*	C:PrtPGS/FIN	[0 to 9999999/ **0** / 1/step]
001	Sort	The SP counts by finishing mode the total number of pages printed by the Copy application.

5.2.2 INPUT CHECK (SP5-803)

Conducting Input Check

1. Select SP5-803.
2. Select the number (see the table below) corresponding to the component.
3. Select “Execute.” The copy mode is activated.
4. The sign “01H” or “00H” is displayed (see the table below).

Input Check Table

Num.	Sensor/Switch	1h	0h
001	Safety SW	Open	Closed
003	Right Cover SW	Open	Closed
006	Upper Relay S	Paper detected	Not detected
007	Lower Relay S	Paper detected	Not detected
009	Regist Sensor	Paper detected	Not detected
010	Exit Sensor	Paper detected	Not detected
011	Duplex Inverter S	Paper detected	Not detected
014	By-pass PE S	Paper detected	Not detected
016	Upper PE S	Paper detected	Not detected
017	BK-Upper PE S	Paper detected	Not detected
020	BK-Lower PE S	Paper detected	Not detected
027	PCU Set Signal	Installed	Not installed
028	BK type	*	*
030	Duplex Installed	Installed	Not installed
032	Main M Lock	Locked	Not locked

System Service Mode (Basic: D067/D072)

Num.	Sensor/Switch	1h	0h
033	Polygon M Lock	Locked	Not locked
035	Total CO Install	Installed	Not installed
036	Key CO Install	Installed	Not installed
037	L-Synchronization	Detected	Not detected
039	DF-Cover Open S	Open	Closed
040	DF-Original Set S	Paper detected	Not detected
041	DF-Registration S	Paper detected	Not detected
042	DF-Exit S	Paper detected	Not detected
044	DF-Reverse S	Paper detected	Not detected
045	Platen Cover S	Open	Closed
050	Fan Motor Lock (High speed)	High speed	Low speed or stop
052	Front Cover SW	Open	Closed
053	HP Sensor	Detected	Not detected
055	BK-UpperCover SW	Open	Closed
056	BK-LowerCover SW	Open	Closed

* Available Paper Feed Unit

00	None
30	1-tray paper feed unit

5.2.3 OUTPUT CHECK (SP5-804)

Conducting Output Check

⚠CAUTION

- To prevent mechanical or electrical damage, do not keep an electrical component on for a long time.

1. Select SP5-804.
2. Select the number (see the table below) corresponding to the component.
3. Select “ON.”
4. To stop the operation, select “OFF.”

Output Check Table

Num.	Component
001	Main M- Fwd
002	Main M- Rev
003	Quenching Lamp
004	Toner Sup CL
005	Fan M- High
006	Fan M- Low
007	Registration CL
008	By-pass Feed CL
009	Upper Feed CL
010	BK-Upper Feed CL
015	BK-Lower Feed CL
020	Duplex Inv M- Rev
021	Duplex Inv M- Fwd

System Service Mode (Basic: D067/D072)

Num.	Component
024	Duplex Inv M- Hold
026	Polygon M
027	Polygon M/LD
028	LD
029	DF-Feed M
030	DF-Transport M
031	DF-Feed CL
034	DF-Gate SOL (Junction Gate Solenoid)
038	Fusing SOL

When checking Fan Motor High (005) or Fan Motor Low (006) note the following:

- These motors may not respond when the fusing temperature is high.
- Selecting “ON” checks that one of these motors normally operates. Selecting “OFF” turns off the motor that you have started by selecting “ON.” However, this does not guarantee that the motor normally stops during normal operation.

5.2.4 PRINTER SERVICE PROGRAM MODE TABLE

SP No.	Description	Function and Setting
1003	Clear Setting	Not used
1005	Display Version	Displays the version of the controller firmware.
1006	Sample/Locked print	0: Link with Doc., 1: On Enables and disables the document server. When you select “0” the document server is enabled or disables in accordance with copy service mode SP5-967. When you select “1” the document server is enabled regardless of service mode SP5-967.

5.2.5 SCANNER PROGRAM MODE TABLE

Service Table Key

Notation	What it means
[range / **default** / step]	Example: [-9 to +9 / **+3.0** / 0.1 mm step]. The setting can be adjusted in the range ±9, value reset to +3.0 after an NVRAM reset, and the value can be changed in 0.1 mm steps with each key press.
italics	Comments added for your reference.
*	This value is stored in NVRAM. After a RAM reset, the default value (factory setting) is restored.
DFU	Denotes “Design or Factory Use”. Do not change this value.

SP1	Mode Number		Function and [Setting]
1001*	5	Scan NV Version	Displays the scanner NV version. This shows as following: Function name _ Model name _ Version
1004*	1	Compression Type	Selects the compression type for binary picture processing. [**1: MH**, 2: MR, 3: MMR]
1005*	1	Erase Margin	Creates an erase margin for all edges of the scanned image. If the machine has scanned the edge of the original, create a margin. [0 to 5 / **0mm** / 1mm step]

1009*	1	Remote Scan disable	Enables or disables the network TWAIN scanner function. **0**: enable, 1: disable
1012	1	User Info Release	Clears or does not clear a user information after a job. [0 or 1 / **1** / -] 0: Not clear, 1: Clear
1013	1	Multi Media Func	Display or not display a “Scan To Multi Media” function. [0 or 1 / **1** / -] 0: OFF, 1: ON

SP	Number/Name	Function and [Setting]
2021	Compression level (grayscale or full color)	
	These SP codes set the compression ratio for the grayscale or full color processing mode that can be selected with the notch settings on the operation panel. Range: 5 (lowest ratio) ↔95 (highest ratio)	
001	Comp1: 5-95 (Middle I-Qual)	[5 to 95 / **20** /1/step]
002	Comp2: 5-95 (High I-Qual)	[5 to 95 / **40** /1/step]
003	Comp3: 5-95 (Low I-Qual)	[5 to 95 / **65** /1/step]
004	Comp4: 5-95 (Highest I-Qual)	[5 to 95 / **80** /1/step]
005	Comp5: 5-95 (Lowest I-Qual)	[5 to 95 / **95** /1/step]

For the settings of the image quality, see the copier SP-mode table.